

OL CABLES
SYSTEMS

MENT TUBING AND PIPING



PRODUCTS WITH INTEGRITY

P-W
INDUSTRIES

P-W INDUSTRIES, INC., PHILADELPHIA, PA. 19115
P-W WESTERN, INC., MONTEBELLO, CALIF. 90641

A.I.A. File No. 31-C-7.4

The slogan, "Progress through Integrity," is not a mere paraphrase of the company name. It is, in essence, the motivating force behind the steady growth of P-W Industries over the past decade.

From the earliest year, when the output of P-W cable trays was measured in modest numbers of "feet-of-tray," the compelling ambition has been to develop P-W's engineering and manufacturing facilities on such a scale as to bring a new creativeness and capability to the industry.

How well we have succeeded may be judged by the record. By 1957, the P-W output was measured in thousands of feet-of-tray; and today it is expressed as miles-of-tray! P-W plants both East and West are busy in meeting the ever-increasing demand for P-W products. The company is regarded as an industry leader in creativity, engineering, and manufacturing. Its products are highly favored for their innovations, mechanical excellence, and integrity.

Some P-W Advances

- P-W introduced and today offers the only tray system that may be assembled with a hammer and drive rivets—for perfect rigidity with extreme savings of installation time.

- P-W developed and introduced the first pre-cut systems to combine rigidity with adaptability to all the varying field conditions.

- P-W introduced the first trays with punched bottoms, so that the cables could be dropped at any desired point.

- P-W was first to offer free technical cooperation: A customer's drawings are marked by us with P-W part numbers to coincide with the numbers placed on the P-W parts when shipped. This "erector-set" idea greatly speeds the installation of tray systems.

Some P-W Achievements

- P-W participated in a pilot experiment with the first use of tubing trays in an oil refinery. Some 200 feet of ladder system helped to reduce the cost of a new petroleum product and ready it for market. Orders for many additional P-W units were subsequently received and filled.

- P-W has many large installations of its trays in steel mills, refineries, and other automation and computer applications.

part toward conquest of

- P-W has the St. Lawrence on this successful of P-W trays was used on the huge Niagara power project.

P-W's Principal Objectives:

- To make your job easier;
- more profitable;
- and most efficient
- for the least possible cost.

This catalog is presented as an aid to you in accomplishing the above objective. We hope you will find it a useful tool in the designing of your next project.

The Catalog Arrangement

The contents of this catalog are arranged in an orderly manner to help you design, specify, purchase and install complete P-W cable tray systems.

First, the Straight Length Sections

Most cable tray systems are specified in terms of their performance and dimensions. Complete details of the straight sections—catalog number; metal; finish; dimension; strength, including section modulus—are given for Versatile Cable Basket, Cable Ladder, Rigidrack, and 4-inch Wide Channel.

Next, the P-W Fittings and Accessories

Following descriptions of the straight length sections appears a composite of dimensions for P-W Fittings and Accessories for Versatile Cable Basket, Cable Ladder, and Rigidrack Systems. (Rigidrack dimensions are in boldface type.) In ordering—use both System Number and Index Number. Instructions, page 4.

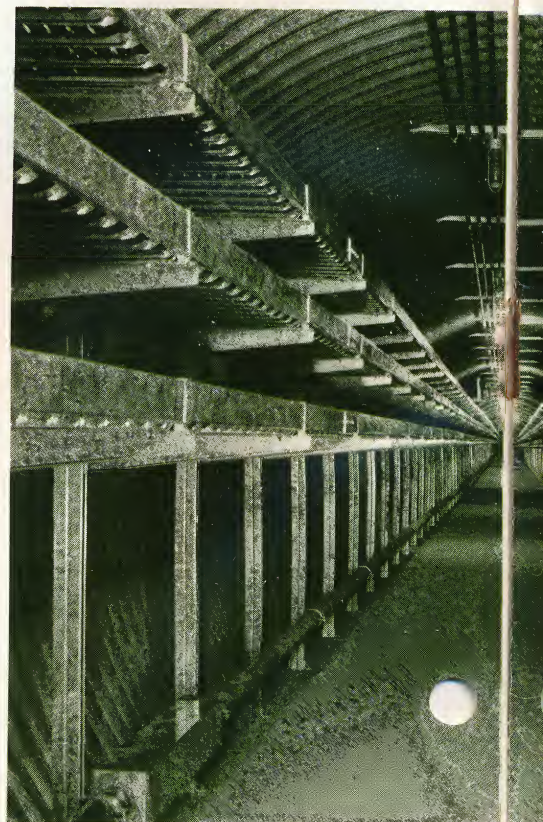
The New P-W Strut System

is presented herein for the first time. P-W Strut employs a continuously slotted, rolled steel channel and spring nuts. The system includes concrete inserts, angle clips, beam clamps, brackets, and associated hardware for supporting trays.

A larger catalog featuring the entire line of P-W Strut, and including fluorescent light fixture supports, additional sizes of channel sections, and many other items, will be sent free upon request.

**Importance
to YOU of**

**Products
With
Integrity**



ELECTRICAL POWER

CONTINUOUS SUPPORT

MECHANICAL INSTRUMENTATION



Systems to meet every need

for maximum safety, utility, economy, and future

Products

for improved integration of trays and supports
and field labor.

Versatile Cable Basket System page 6

Introducing a new Versatile system for the continuous ventilated support of large or small cables and tubes . . . a system that is easy to work with in the field; and does not have the inherent problems of older systems.

The loading charts show new strength; new full-three-inch loading depth and new drop-out capability.

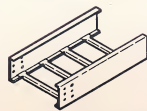
Maximum savings—minimum scrap (connector holes only); YOU get 99.9% of the metal WE purchase.

P-W Basket and Ladder Support Systems Are Interchangeable.

All are offered in steel (hot dip galvanized after fabrication, or pre-galvanized) and aluminum.

Fittings and accessories for all Basket and Ladder systems are identical.

(Note the new items available for these systems when used with P-W's Strut supports, sheet metal brackets, or building steel.)

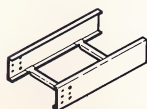


Cable Ladder Systems page 7

The P-W System in Popular Demand . . . All Welded Units

—for unmatched ease of handling and erection, for both the installers and the cables.

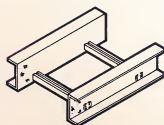
Three basic rung spacings: 6-inch; 9-inch; 12-inch.



Rigidrack Tray Systems page 9

An expanded line of aluminum racks for long spans, extruded of heavy-gauge, light-weight aluminum alloy for extra strength, rigidity, and corrosion resistance.

All-welded construction for maximum safety.



Appurtenants: P-W System Fittings page 11

P-W Cable Tray Accessories page 19

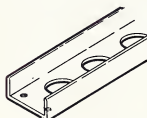
P-W Rollers and Pulleys page 23

P-W Strut and Accessories page 25

4-inch Wide Channel System page 27

A companion channel system in one easy-to-use 4-inch width to support branch runs of tubing and electrical cables.

Available in both steel and aluminum—with all necessary accessories for improved integration of tray system and supporting structure.



Tubing Raceway page 30

Re-offering a famous P-W line, with added items in the 3 3/8" width.



Specifications page 31



P-W Cable Basket in missile test center.

Selecting a P-W System for Your Need

In selecting a P-W cable tray system to meet your engineering requirements, the following basic facts must be determined:

- The available spacing of the structural members (steel columns, pipe supports, walls, etc.) on your job.
- The expected maximum load per running foot for the span length increment.
- The minimum inside tray depth and width required for your tubes or cables.
- The expected engineering limitations of the material (magnetic, non-magnetic).

Consultation of the STRAIGHT LENGTH charts and descriptive data in this catalog will then indicate which P-W system to specify and which System Number Prefix to use.

Specifications. In writing your specifications, you may wish to refer to the suggestions printed herein on page 31.

Parts. In specifying parts, please use catalog numbers. Instruct.

Specialties. For most non-

P-W products will meet an

Occasionally, a special coat-

other non-sta-

struction, such as 3-inch high tr-

Should the need for specialtie-

please contact our factory engineer

information and design.

Sales Engineers. P-W Industries offers a nation-wide service through sales engineers well qualified and eager to help make your task easier and more economical. District sales managers, in turn, help to coordinate your project needs and our factory facilities for expedient service. These men are the tireless P-W team who provide that "Essential Difference" which makes dealing with P-W a pleasant and satisfactory experience.

CATALOG NUMBERING SYSTEM

The P-W numbering system for Versatile Cable Basket, Cable Ladder, Rigidrack, and Channel straight-length tray sections—and for their fittings, covers, and associated accessories which depend on side-rail dimensions—has two basic parts:

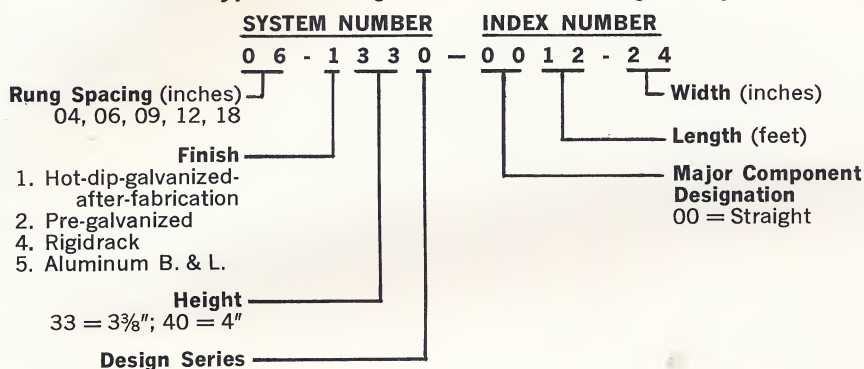
THE SYSTEM NUMBER

Always select the tray System Number from the Straight Length Pages first. Then, place this number in front of the Index Number for fittings and accessories. (Except, of course, where complete numbers appear.)

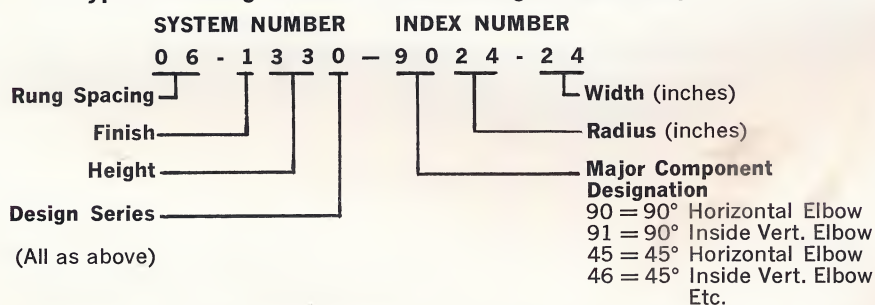
The diagram below illustrates how a typical catalog number is formed and interpreted.

THE INDEX NUMBER

A Typical Catalog Number For a Straight Tray



A Typical Catalog Number For a Fitting or Accessory



Note that there are helpful correlations in the numbering system:

The first two figures of the System Number for all tray systems (except Channel or Raceway) indicate the rung spacing.

The first two figures of the Index Number indicate the angle and type of fittings. The last two figures (after the dash) indicate the width of tray on straight lengths and fittings.

(In some cases such as P-W Strut, Channel, and Raceway Systems, the full catalog number is given.)

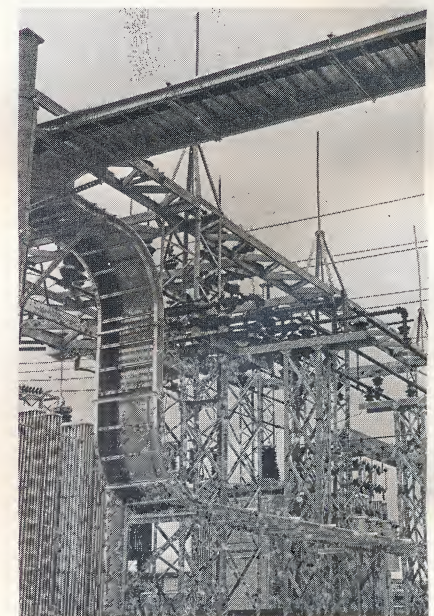
Time-saving Suggestion: Use the Straight Length System Number Prefix as a heading and list the Index Numbers of all fittings required for that same system below it.

ABBREVIATIONS

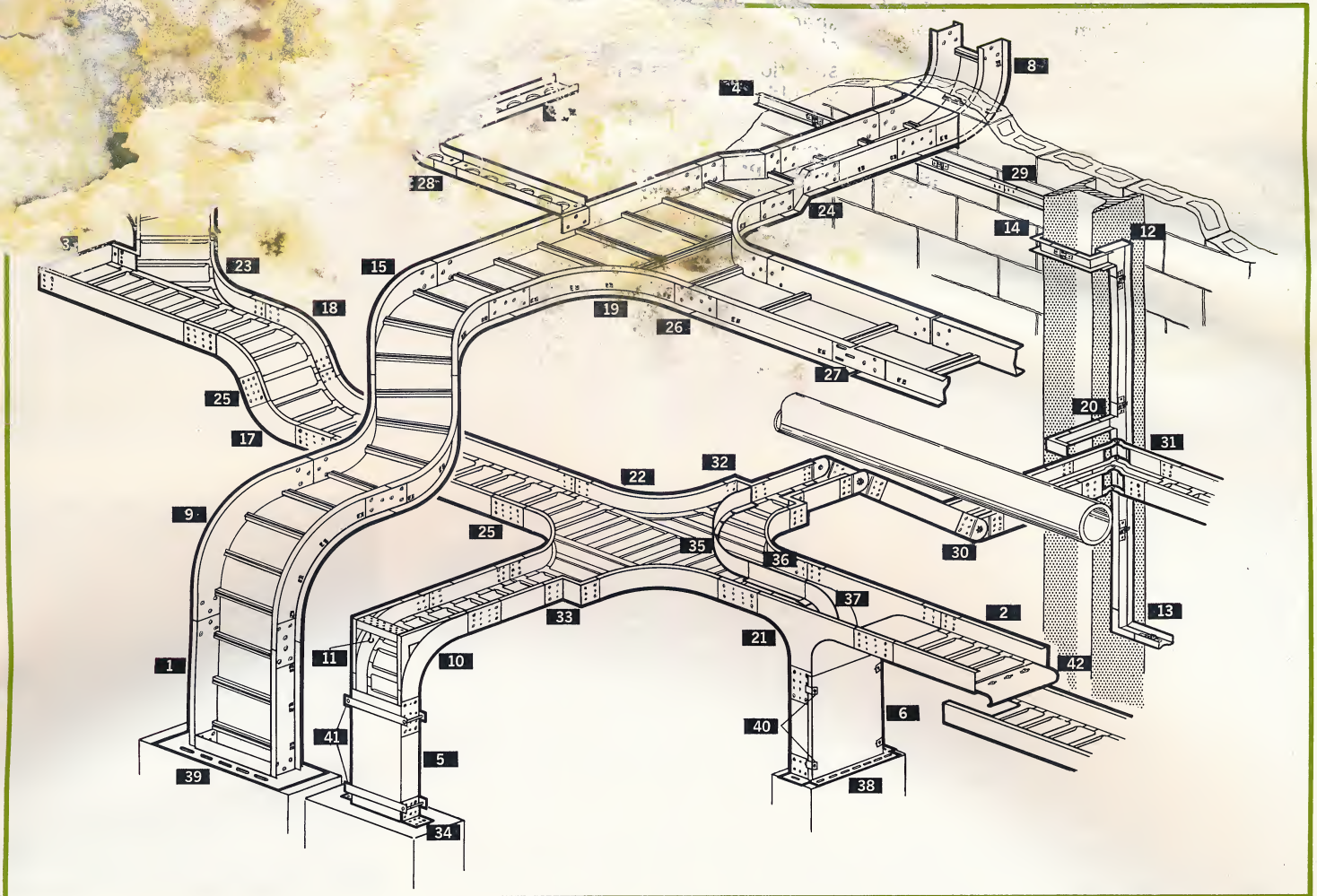
Below are listed some of the abbreviations used in the charts and notes of this catalog along with their meanings:

- ALUM.—Aluminum
- B&L—Basket & Ladder
- C—Channel
- FLG.—Flanged
- H—Height
- HDGAF—Hot-dip-galvanized-after-fabrication (steel)
- L—Length
- OD—Outside Diameter
- PG—Pre-galvanized (steel)
- R—Radius
- RR—Rigidrack
- LH or RH—Left or Right Hand
- STL—Steel
- W—Width

Rigidrack with covers used in power plant.



Identification — P-W Systems

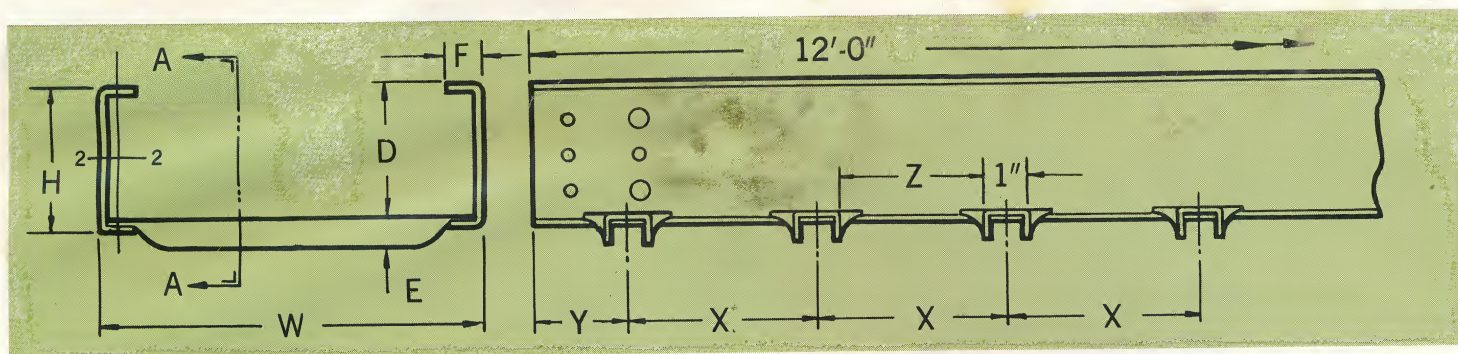


No.	Part	Page	No.	Part	Page
1	Straight Length, Rigidrack	9	23	45° Horizontal Wye Branch, B.&L. Only	12
2	Straight Length, Basket and Ladder	6, 7	24	Reducers, Basket and Ladder, Rigidrack	13
3	Straight Length, 4" Channel	28	25	Channel Connector, Basket and Ladder	8
4	Straight Length, Raceway	30	26	Plate Connector, Rigidrack	10
5	Flat Covers	19	27	Expansion Connector, Rigidrack	10
6	Flanged Covers	19	28	4" Channel Connector	28
7	Horizontal Fittings, Channel	28	29	Straight Raceway Connector	30
8	Inside 90° Vertical Elbow, R.R.	15	30	Adj. Vertical Connector, B.&L. and R.R.	14
9	Outside 90° Vertical Elbow, R.R.	15	31	Adj. Horiz. Connector, B.&L. and R.R.	14
10	Cable Support Elbow—B.&L. and R.R.	17	32	Straight Reducer, Basket and Ladder	13
11	"J" Hooks for hanging Cable	17	33	Offset Reducer, Basket and Ladder	14
12	90° Raceway Connectors	30	34	Angle Connector	14
13	90° Inside Elbow, Raceway	30	35	Adjustable Horizontal Divider	21
14	90° Outside Elbow, Raceway	30	36	Straight Divider	21
15	45° Horizontal Elbow, Rigidrack	11	37	Vertical Elbow Divider	21
16	45° Horizontal Elbow, B.&L.	11	38	Trough-to-Box Connector, B.&L.	18
17	45° Inside Vertical Elbow, B.&L.	16	39	Trough-to-Box Connector, R.R.	18
18	45° Outside Vertical Elbow, B.&L.	16	40	Cover Connector Clip, B.&L.	20
19	Horizontal Tee, B.&L. and R.R.	12	41	Cover Connector Strap, B.&L.	20
20	Tee Connector Raceway	30	42	Dropout	18
21	Vertical Tee, Basket and Ladder	17	43	Blind End	18
22	Horizontal Cross, B.&L. and R.R.	12			

Versatile Cable Basket—

This system may be used for the support of all types of cable—electrical power and control, instrumentation, and communication—and/or tubing of any diameter. Since the cross members are on 4-inch centers, small cables can

be dropped out. Loading is over 12 feet. Standard lengths are 12, 18, and 24 inches. Welded structure, with 144 welds per 12-foot section.



Versatile Cable Basket straight sections are produced in three finishes: 1) steel, equal to AISI C1008 grade, hot dip galvanized after fabrication and welding, per ASTM A386; 2) pre-galvanized steel, for use where environmental conditions will not cause excessive corrosion; 3) aluminum, with 6063T6 extruded side channels and rungs of 5052H32 alloy.

Connectors are furnished with each straight section and fitting. Specify the type of hardware desired by giving the connector number that applies (see page 8). If extra connections are required for field cuts, order by using the given catalog number (being sure to include the System Number).

Fittings are offered in standard 12-inch and 24-inch radii and can be used with either Versatile Cable Basket or Cable Ladder systems. All fittings are either steel (hot dip galvanized

after fabrication) or aluminum.

Channel side construction is maintained on all straight lengths and fittings, for best appearance, neatness, strength, and economy. Solid metal side channels provide the maximum chimney effect for uniform cooling of cables.

A complete line of accessories, such as divider strips, covers, clips, clamps, and cable attachments, is offered (see pages 19 to 22).

Loadings show the Versatile Cable Basket to be superior in strength, since the loads are not limited by the strength of cross members.

Versatile Cable Basket and P-W Cable Ladder systems are completely interchangeable. One type of connector is used for both systems.

To specify a solid tray: Instead of the regular System Number prefix, use 1801 for steel (HDGAF); 2801 for pre-galvanized steel; and 5725 for aluminum.



Table 1—BASKET SYSTEM—DIMENSIONS (Inches)

BASKET System No. (Prefix)	MATERIAL	SIDE RAILS							RUNGS						
		H	D	F	GAGE		S Axis 2-2 In. ³	I Axis 2-2 In. ⁴	X	Y	Z	E	GAGE		
					Web	Flg.							6, 9, 12 Wide	18 & 24 Wide	
04-1330	Steel, HDGAF	3¾	3¾	¾	16	16	.249	.420	4	2	3	¾	20	16	
04-1331	Steel, HDGAF	3¾	3¾	¾	16	16	.249	.420	4	2	3	¾	16	16	
04-2330	Pre-galv. Steel	3¾	3¾	¾	16	16	.249	.420	4	2	3	¾	20	16	
04-2331	Pre-galv. Steel	3¾	3¾	¾	16	16	.249	.420	4	2	3	¾	16	16	
04-5330	Aluminum*	3¾	3¾	¾	.080	.105	.376	.634	4	2	3	¾	.080	.080	

*Rails: 6063T6; Rungs: 5052H32.

Table 2—BASKET SYSTEM—Cat. Nos.

STRAIGHT LENGTH Prefix	DESCRIPTION Width	Length
(System No.)—0012-06	6"	12'-0"
(System No.)—0012-09	9"	12'-0"
(System No.)—0012-12	12"	12'-0"
(System No.)—0012-18	18"	12'-0"
(System No.)—0012-24	24"	12'-0"

**Maximum Allowable Load vs. Span and Resultant Deflection
STEEL AND ALUMINUM BASKET—ALL WIDTHS**

METAL IN SYSTEM	SPAN LENGTH IN FEET							
	6		8		10		12	
	Load	Defl.	Load	Defl.	Load	Defl.	Load	Defl.
Steel	155	.19"	88	.33"	56	.52"	39	.74"
Aluminum	140	.32"	78	.59"	50	.89"	35	1.28"

NOTES: 1. Safety factor for steel is approximately 1.65, based on the minimum yield of low carbon steel equal to AISI-C1008. Safety factor for aluminum is approximately 2.5, based on minimum yield of 6063T6. 2. Computations are for simple beam. Load represents pounds per lineal foot; deflection is in inches.

6"-9"-12" Rung Spacing

...the type of side rails, and rungs as Versa-
...identical connectors and
...for medium and large-
...cables. Standard length is 12 feet.

Solid rungs on the straight sections are 6-, 9-, or 12-inch on centers. Smaller cables (not requiring 4-inch) may use 6- or 9-inch. Use 12-inch rungs for more rigid cables. (The longer the centers the greater the economy.)

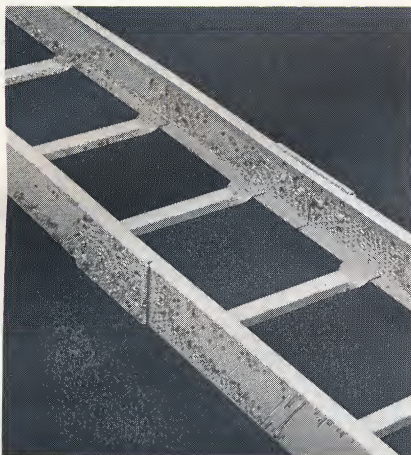
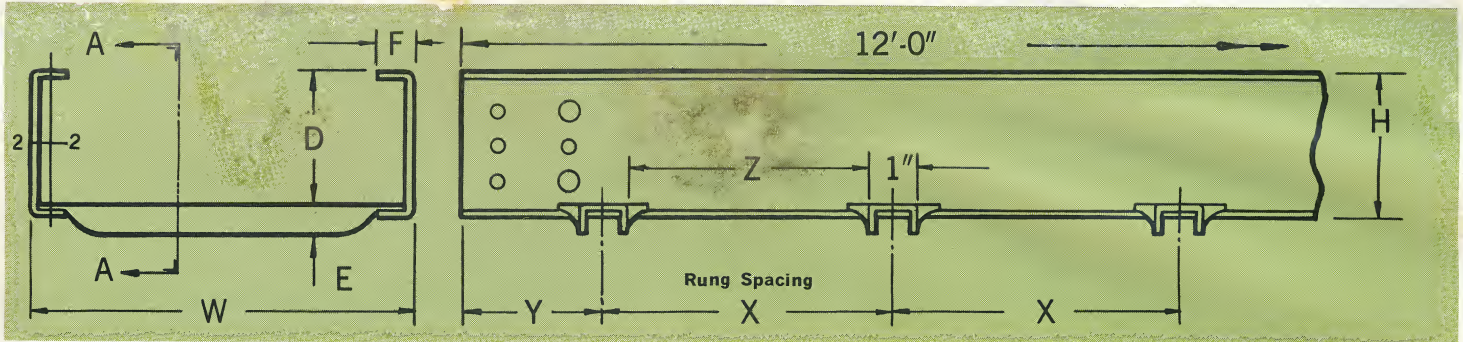


Table 3—LADDER SYSTEM—Cat. Nos.

STRAIGHT LENGTH		DESCRIPTION	
Prefix	Index	Width	Length
(System No.)—0012-06		6"	12'-0"
(System No.)—0012-09		9"	12'-0"
(System No.)—0012-12		12"	12'-0"
(System No.)—0012-18		18"	12'-0"
(System No.)—0012-24		24"	12'-0"

To specify slotted rungs, substitute the following System Numbers; being certain to insert the desired rung spacing in the parentheses. (06 for 6", 09 for 9", 12 for 12" spacing.)

System Numbers:
 ()-1333 Steel, HDGAF
 ()-2333 Steel, pre-galv.
 ()-5332 Aluminum

Metals:

Table 4—LADDER SYSTEM—DIMENSIONS (Inches)

LADDER System No. (Prefix)	MATERIAL	SIDE RAILS						RUNGS						
		H	D	F	GAGE		S Axis 2-2 In. ³	I Axis 2-2 In. ⁴	X	Y	Z	E	GAGE	
					Web	Flg.							6, 9, 12 Wide	18 & 24 Wide
06-1331	Steel, HDGAF	3¾	3¾	¾	16	16	.249	.420	6	3	5	⅝	16	16
09-1331	Steel, HDGAF	3¾	3¾	¾	16	16	.249	.420	9	4½	8	⅝	16	16
12-1331	Steel, HDGAF	3¾	3¾	¾	16	16	.249	.420	12	6	11	⅝	16	16
06-2331	Pre-galv. Steel	3¾	3¾	¾	16	16	.249	.420	6	3	5	⅝	16	16
09-2331	Pre-galv. Steel	3¾	3¾	¾	16	16	.249	.420	9	4½	8	⅝	16	16
12-2331	Pre-galv. Steel	3¾	3¾	¾	16	16	.249	.420	12	6	11	⅝	16	16
06-5330	Aluminum	3¾	3¾	¾	.080	.105	.376	.634	6	3	5	⅝	.080	.080
09-5330	Rails: 6063T6	3¾	3¾	¾	.080	.105	.376	.634	9	4½	8	⅝	.080	.080
12-5330	Rungs: 5052H32	3¾	3¾	¾	.080	.105	.376	.634	12	6	11	⅝	.080	.080

Maximum Allowable Load vs. Span and Resultant Deflection
STEEL LADDER

W	SPAN LENGTH IN FEET								Rung Spacing
	6		8		10		12		
	Load	Defl.	Load	Defl.	Load	Defl.	Load	Defl.	
24	75*	.09	75*	.25	56	.52	39	.74	12
18	100*	.16	88	.33	56	.52	39	.74	12
12	150*	.18	88	.33	56	.52	39	.74	12
9	155	.19	88	.33	56	.52	39	.74	12
6	155	.19	88	.33	56	.52	39	.74	12
24	100*	.12	88	.33	56	.52	39	.74	9
18	133*	.16	88	.33	56	.52	39	.74	9
12	155	.19	88	.33	56	.52	39	.74	9
9	155	.19	88	.33	56	.52	39	.74	9
6	155	.19	88	.33	56	.52	39	.74	9
24	150*	.18	88	.33	56	.52	39	.74	6
18	155	.19	88	.33	56	.52	39	.74	6
12	155	.19	88	.33	56	.52	39	.74	6
9	155	.19	88	.33	56	.52	39	.74	6
6	155	.19	88	.33	56	.52	39	.74	6

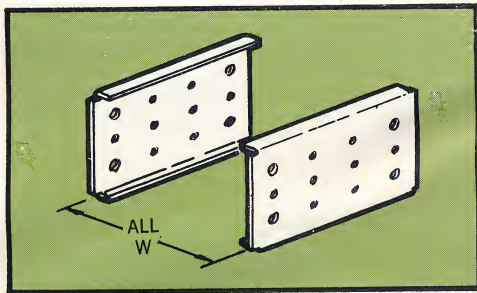
ALUMINUM LADDER

24	50*	.12	50*	.38	50	.89	35	1.28	12
18	67*	.15	67*	.51	50	.89	35	1.28	12
12	100*	.23	78	.59	50	.89	35	1.28	12
9	133*	.30	78	.59	50	.89	35	1.28	12
6	140	.32	78	.59	50	.89	35	1.28	12
24	67*	.15	67*	.51	50	.89	35	1.28	9
18	89*	.20	78	.59	50	.89	35	1.28	9
12	133*	.30	78	.59	50	.89	35	1.28	9
9	140	.32	78	.59	50	.89	35	1.28	9
6	140	.32	78	.59	50	.89	35	1.28	9
24	100*	.23	78	.59	50	.89	35	1.28	6
18	133*	.30	78	.59	50	.89	35	1.28	6
12	140	.32	78	.59	50	.89	35	1.28	6
9	140	.32	78	.59	50	.89	35	1.28	6
6	140	.32	78	.59	50	.89	35	1.28	6

*Limited by load carrying capacity of rung.

NOTES: 1. Safety factor for steel is approximately 1.65, based on the minimum yield of low carbon steel equal to AISI-C1008. Safety factor for aluminum is approximately 2.5, based on minimum yield of 6063T6. 2. Computations are for simple beam. Load represents pounds per lineal foot; deflection is in inches.

Installing P-W Basket a.

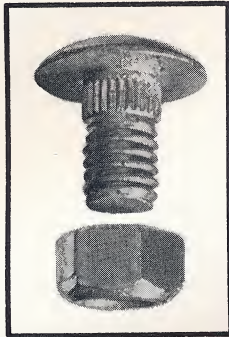
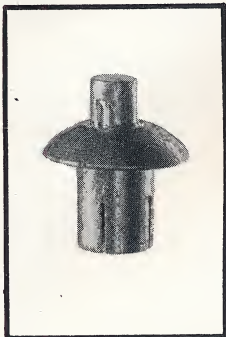


P-W connections employ two channels—one for each side of the tray—pre-punched to match the punching in the ends of the tray straight lengths and the fittings.

All steel systems use channel connectors made of carbon steel equal to AISI C1008 and are hot dip galvanized after fabrication and punching.

Connectors for aluminum Cable Basket and Cable Ladders are made of 5052H32 alloy.

All connectors are punched to receive either one of two available hardware fasteners.



The first is P-W's famous drive rivet, designed especially for use with cable trays. The 1/4-inch diameter rivet has a pin which is driven flush with the head by a hammer, just as one drives a nail. The body and the tail of the rivet expand and lock in place. Each rivet will withstand 2,000 pounds in shear, and 1,000 pounds in compression. There is no requirement for a back-up. Eight rivets are used (four for each connector channel) in every joint. (Rivets are easy to remove, too. Push the pin out either way, and back out the rivet body; it may be reused.)

Caution: do not fill up every rivet hole.

The holes are punched in the tray or fitting shown at the right so that one type of connector will fit all conditions.

Where bolts and nuts are to be used, P-W Industries offers a specially designed 3/8-inch diameter, ribbed neck, cyanide-hardened steel-plated bolt and a prevailing torque (lock-type) nut which does not need a washer. Holes for this hardware are also pre-punched in the connectors (see diagram, right).

The knurled part of the bolt grips the steel or aluminum, preventing the nut from rotating when it is being tightened. Should something prevent tightening, the nut will not back off or become loose from vibration.

Eight bolts (four for each connector plate) are used for every connection.

Should a field-drilled hole be too large for the knurl to grip, a Phillips slot in the bolt head permits tightening.

In field cutting, it is necessary to compute or measure the length you need. Measuring your tray from the pre-punched end, cut the tray to the desired length. Do not undercut, because maximum strength is achieved with a pressure connection. Attach the pre-punched end of the filler section to the adjacent pre-punched section by means of the connectors. At the cut end, attach a connector to the fitting located at that end. Using the connector holes as a jig, drill the required holes in the cut ends. (Where conditions require pre-drilling the cut end of cable trays, be sure to measure accurately. In such cases it may be necessary to attach one connector plate to the cut tray and the other plate to the fitting, since it is difficult to feed a long straight section when both connector plates are on the fitting.)

Expansion connectors, permitting 1 1/2 inch of movement, are available. Catalog number: (System Number)—1314-02.

To inhibit oxidation on aluminum connections and to insure better electrical continuity, we offer an oxidation inhibitor in paste form. It is sold in 8-oz. plastic squeeze bottles. Catalog Number: (System Number)—0907-01. (This paste is not normally required on zinc-coated materials.)

Spare drive rivets:

Catalog No. **DS-8500-1** for steel system.
Catalog No. **DA-8500-1** for aluminum.

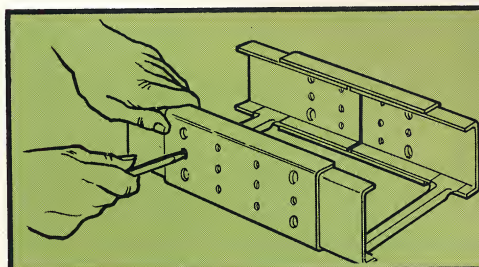
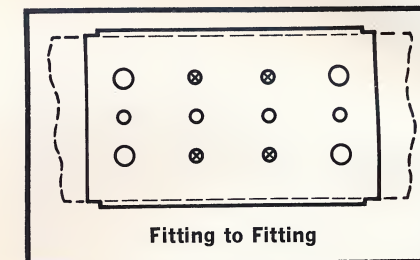
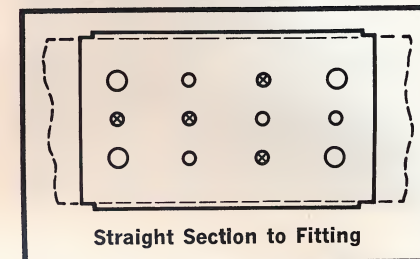
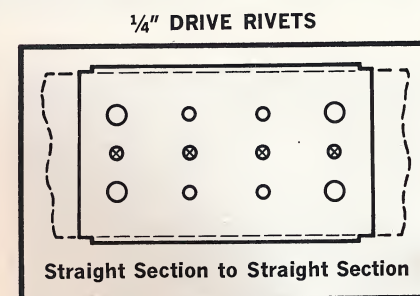
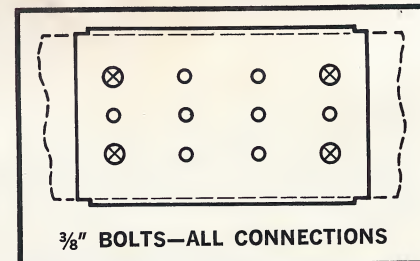
Spare bolts and nuts (for all systems):

Knurled bolt: Catalog No. **DS-8530-1**.
Torque nut: Catalog No. **DS-8575-2**.

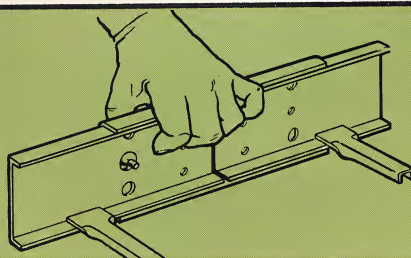
Connector plates: drive rivets
(System Number)—1302-01.

Connector plates: bolts and nuts
(System Number)—1302-02.

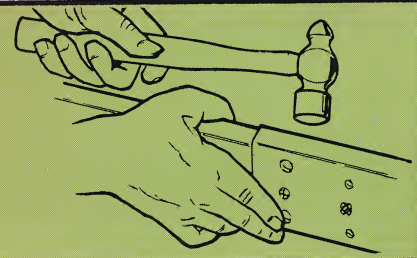
Recommended Connections:



Align channel connector and fitting holes with a drive pin or punch. Hold parts firmly together.



Insert drive rivet in desired hole from inside of the support channel—head flush against the steel.



Hit drive pin of rivet firmly with a lightweight hammer to expand body and tail, locking in place.

P-W Rigidrack Systems

These rigidracks are made of 1/2" gauge extruded member support heavy loads on medium and long spans. Standard straight length is 24 feet. Standard widths are 6, 9, 12, 18, 24, and 30 inches. Interior depth is 3 inches.

Two rung spacings, 9" and 18", are offered. All systems are interchangeable, even within one run. Fittings are available in 12", 24", and 36" radii, with 5" of tangent; and are same size as side rails of straight lengths.

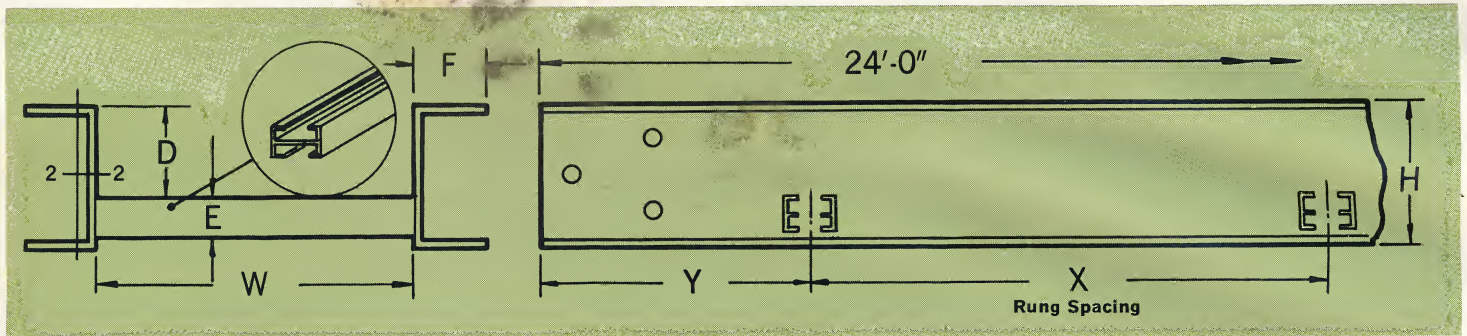


Table 6—RIGIDRACK SYSTEMS—DIMENSIONS (Inches)

RIGIDRACK System No. (Prefix)	SIDE RAILS							RUNGS				
	H	D	F	GAGE		S Axis 2-2 In. ³	I Axis 2-2 In. ⁴	MAT'L	X	Y	E	MAT'L
				Web	Flg.							
09-4403	4	3	1¾	.125	.156	1.27	2.54	6063T6 Extrud. Alum. Alloy	9	4½	¾	6063T6 Extrud. Alum. Alloy
18-4403	4	3	1¾	.125	.156	1.27	2.54		18	9	¾	
09-4400	4	3	¾	.125	.125	.620	1.24		9	4½	¾	
18-4400	4	3	¾	.125	.125	.620	1.24		18	9	¾	

Maximum Allowable Load vs. Span and Resultant Deflection
RIGIDRACK

Table 5—RIGIDRACK—Cat. Nos.

STRAIGHT LENGTHS		DESCRIPTION	
Prefix	Index	Width	Length
(System No.)—0024-06		6"	24'-0"
(System No.)—0024-09		9"	24'-0"
(System No.)—0024-12		12"	24'-0"
(System No.)—0024-18		18"	24'-0"
(System No.)—0024-24		24"	24'-0"
(System No.)—0024-30		30"	24'-0"

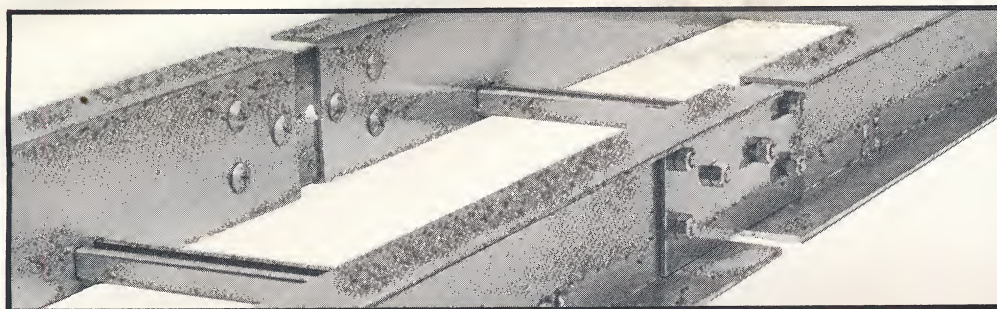
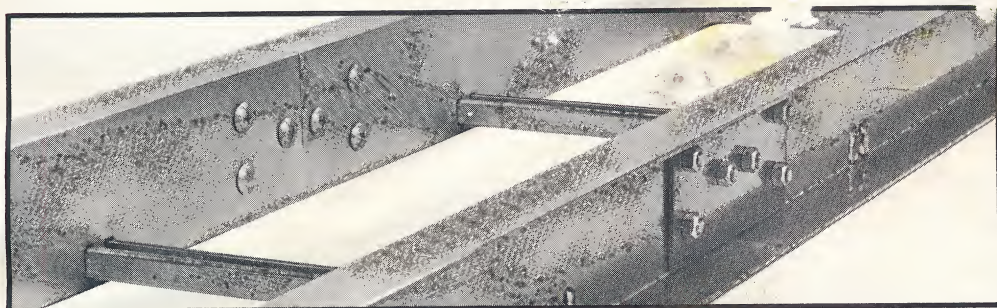
Width (inch)	Side Rail	SPAN LENGTH IN FEET										Rung Spacing
		14		16		18		20		22		
		Load	Defl.	Load	Defl.	Load	Defl.	Load	Defl.	Load	Defl.	
30	4x1¾	73*/87	1.24*/1.43	66	1.92	52	2.43	42	3.00	35	3.63	9 & 18
24	4x1¾	87	1.47	66	1.92	52	2.43	42	3.00	35	3.63	9 & 18
18	4x1¾	87	1.47	66	1.92	52	2.43	42	3.00	35	3.63	9 & 18
12	4x1¾	87	1.47	66	1.92	52	2.43	42	3.00	35	3.63	9 & 18
9	4x1¾	87	1.47	66	1.92	52	2.43	42	3.00	35	3.63	9 & 18
6	4x1¾	87	1.47	66	1.92	52	2.43	42	3.00	35	3.63	9 & 18

*18" Rung spacing limited by load carrying capacity of Rung.

Width (inch)	Side Rail	SPAN LENTH IN FEET										Rung Spacing
		8		10		12		14		16		
		Load	Defl.	Load	Defl.	Load	Defl.	Load	Defl.	Load	Defl.	
30	4x¾	129*	0.48	83*	0.75	57	1.08	42	1.47	32	1.92	9"
24	4x¾	129*	0.48	83	0.75	57	1.08	42	1.47	32	1.92	9"
18	4x¾	129*	0.48	83	0.75	57	1.08	42	1.47	32	1.92	9"
12	4x¾	129	0.48	83	0.75	57	1.08	42	1.47	32	1.92	9"
9	4x¾	129	0.48	83	0.75	57	1.08	42	1.47	32	1.92	9"
6	4x¾	129	0.48	83	0.75	57	1.08	42	1.47	32	1.92	9"
30	4x¾	73*	0.28	73*	0.67	57	1.08	42	1.47	32	1.92	18"
24	4x¾	92*	0.35	83	0.75	57	1.08	42	1.47	32	1.92	18"
18	4x¾	123*	0.46	83	0.75	57	1.08	42	1.47	32	1.92	18"
12	4x¾	129	0.48	83	0.75	57	1.08	42	1.47	32	1.92	18"
9	4x¾	129	0.48	83	0.75	57	1.08	42	1.47	32	1.92	18"
6	4x¾	129	0.48	83	0.75	57	1.08	42	1.47	32	1.92	18"

*Limited by the load carrying capacity of the Rung.

P-W Rigidrack Systems — installation



Rigidrack construction features rungs that protrude through the side rails and are welded on the outside—for superior strength and durability. The rungs are slotted top and bottom for easy attachment of cable clamps.

Connections are two 6061T6 alloy plate-type compression joints employing $\frac{3}{8}$ -inch diameter, ribbed neck, cyanide-hardened, steel-plated bolts and prevailing torque (lock-type) nuts. Twelve bolts (six for each connector plate) are used for every connection.

Spare bolts and nuts:

Knurled bolt: Catalog No. **DS-8530-1.**

Torque nut: Catalog No. **DS-8575-2.**

Installing the P-W Rigidrack System

The installation of a P-W Rigidrack system is "simple as A-B-C." The fastening hardware for the system includes a specially designed $\frac{3}{8}$ -inch diameter, ribbed neck, cyanide-hardened, steel-plated bolt and a prevailing torque (lock-type) nut. A screwdriver is unnecessary 99% of the time. Holes to match those in the connectors are pre-punched in the ends of each side rail. Connections are pressure type. It is important, when field cutting the trays, that undercutting does not occur.

In the event that field-drilled holes should be slightly out of round and the knurl on the bolt does not grip, a Phillips slot has been provided in the bolt head to permit tightening.

Flanged covers, divider strips and their accessories are available—as well as hold-down devices for use with P-W Strut and hanger items for use with rods.

Branch take-offs of single cables can be made utilizing P-W's Channels (see page 28).

Fittings available for this line, and their dimensions, are shown on pages 11 to 18 of this catalog; accessories, on pages 19 to 22.

To inhibit oxidation on aluminum connections and to insure better electrical continuity, we offer an oxidation inhibitor in paste form. It is sold in 8-oz. plastic squeeze bottles. Catalog Number: (System Number)—**0907-01.**

Connectors are furnished with every straight section and fitting. Additional connectors for field cuts must be ordered separately. (System Number)—**1302-02.**

Expansion Joints, permitting $1\frac{1}{2}$ inches of movement, are available for situations that require them. The catalog number for ordering is (System Number)—**1314-02.**

Application of P-W Rigidrack system at power utility location.



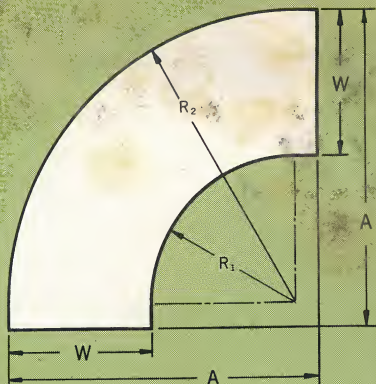


Table 7—90° HORIZONTAL ELBOW

Catalog No. Index	W	B. & L.			Rigidrack		
		R1	R2	A	R1	R2	A
—9012—	6	12	18	20	12	18	23
—9024-06	6	24	30	32	24	30	35
—9036-06	6				36	42	47
—9012-09	9	12	21	23	12	21	26
—9024-09	9	24	33	35	24	33	38
—9036-09	9				36	45	50
—9012-12	12	12	24	26	12	24	29
—9024-12	12	24	36	38	24	36	41
—9036-12	12				36	48	53
—9012-18	18	12	30	32	12	30	35
—9024-18	18	24	42	44	24	42	47
—9036-18	18				36	54	59
—9012-24	24	12	36	38	12	36	41
—9024-24	24	24	48	50	24	48	53
—9036-24	24				36	60	65
—9012-30	30				12	42	47
—9024-30	30				24	54	59
—9036-30	30				36	66	71

(Add System No. Prefix)

P-W Tray Fittings

Features • Side rails of all major fittings are same size and shape as those in main sections.

• Fittings allow for changes in direction and elevation. For other than a standard degree of arc, there are adjustable connector types.

• Trays of dissimilar sizes may be connected on a common centerline with straight reducers; or on either common flangeline with offset reducers.

• Reducer-connectors for Basket and Ladder trays of dissimilar size save one connector and reducer.

• P-W's adjustable riser connector permits odd-angle offsets in the vertical direction.

• Curved fittings have tangents at both ends—2-inch in Basket and Ladder; 5-inch in Rigidrack.

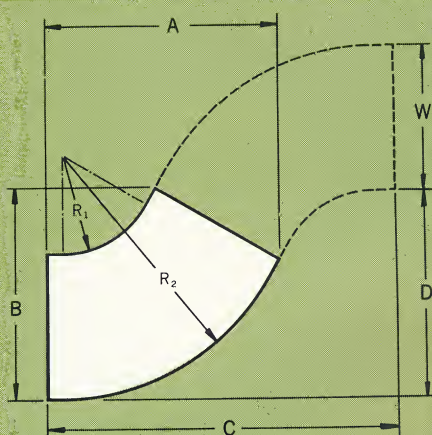


Table 8—DIMENSIONS—60° HORIZONTAL ELBOW (Inches)

CATALOG NO.		W	BASKET & LADDER						RIGIDRACK					
Prefix	Index		R1	R2	A	B	C	D	R1	R2	A	B	C	D
(System No.)—6012-06	6	6	12	18	18%	13%	32	18½	12	18	23½	16%	41	23½
(System No.)—6024-06	6	6	24	30	29	19%	52¾	30½	24	30	33½	22%	61¾	35¾
(System No.)—6036-06	6	6							36	42	43¾	28%	82½	47¾
(System No.)—6012-09	9	9	12	21	21¼	16¾	34½	20	12	21	25½	19%	43½	25¼
(System No.)—6024-09	9	9	24	33	31½	22¾	55%	32	24	33	36½	25%	64¾	37¼
(System No.)—6036-09	9	9							36	45	46½	31%	85½	49¼
(System No.)—6012-12	12	12	12	24	23¾	19¾	37½	21½	12	24	28½	22%	46¼	26¾
(System No.)—6024-12	12	12	24	36	34¼	25¾	58	33½	24	36	38¾	28%	67	38¾
(System No.)—6036-12	12	12							36	48	49¾	34%	87¾	50¾
(System No.)—6012-18	18	18	12	30	29	25¾	42¾	24½	12	30	33½	28%	51%	29¾
(System No.)—6024-18	18	18	24	42	39%	31¾	63%	36½	24	42	43¾	34%	72½	41¾
(System No.)—6036-18	18	18							36	54	54¾	40%	92½	53¾
(System No.)—6012-24	24	24	12	36	34½	31¾	47½	27½	12	36	38¾	34%	56½	32¾
(System No.)—6024-24	24	24	24	48	44%	37¾	68%	39½	24	48	49¾	40%	77¾	44¾
(System No.)—6036-24	24	24							36	60	59¾	46%	98¾	56¾
(System No.)—6012-30	30	30							12	42	43¾	40%	61¾	35¾
(System No.)—6024-30	30	30							24	54	54¾	46%	82½	47¾
(System No.)—6036-30	30	30							36	66	64¾	52%	103%	59¾

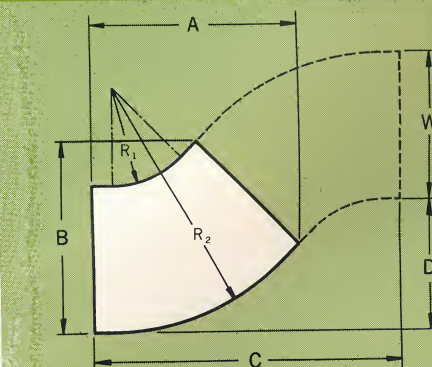


Table 9—DIMENSIONS—45° HORIZONTAL ELBOW (Inches)

CATALOG NO.		W	BASKET & LADDER						RIGIDRACK					
Prefix	Index		R1	R2	A	B	C	D	R1	R2	A	B	C	D
(System No.)—4512-06	6	6	12	18	16½	10%	28	11%	12	18	21¼	13½	38½	16
(System No.)—4524-06	6	6	24	30	24½	14½	45	18¾	24	30	29¾	16%	55¼	23
(System No.)—4536-06	6	6							36	42	38¾	20¾	72¼	29¾
(System No.)—4512-09	9	9	12	21	18¼	13%	30½	12%	12	21	23¾	16%	40½	16¾
(System No.)—4524-09	9	9	24	33	26¾	17½	47½	19½	24	33	31¾	19%	57¾	23¾
(System No.)—4536-09	9	9							36	45	40%	23¾	74¾	30¾
(System No.)—4512-12	12	12	12	24	20¾	16%	32¼	13%	12	24	25½	19%	42%	17¾
(System No.)—4524-12	12	12	24	36	28%	20½	49¼	20½	24	36	34	22%	59½	24¾
(System No.)—4536-12	12	12							36	48	42½	26%	76½	31¾
(System No.)—4512-18	18	18	12	30	24¾	22%	36½	15%	12	30	29¾	25%	46%	19½
(System No.)—4524-18	18	18	24	42	33%	26½	53½	22%	24	42	38¼	28%	63¾	26%
(System No.)—4536-18	18	18							36	54	46¾	32%	80¾	33¾
(System No.)—4512-24	24	24	12	36	28%	28¾	40¾	16¾	12	36	34	31%	51%	21¼
(System No.)—4524-24	24	24	24	48	37%	32½	57%	24	24	48	42½	34%	68	28¼
(System No.)—4536-24	24	24							36	60	51	38%	85	35¼
(System No.)—4512-30	30	30							12	42	38¼	37%	55%	23
(System No.)—4524-30	30	30							24	54	46¾	40%	72¼	30
(System No.)—4536-30	30	30							36	66	55¼	44%	89¼	37

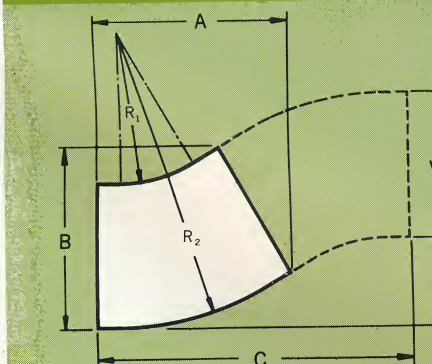


Table 10—DIMENSIONS—30° HORIZONTAL ELBOW (Inches)

CATALOG NO.		W	BASKET & LADDER						RIGIDRACK					
Prefix	Index		R1	R2	A	B	C	D	R1	R2	A	B	C	D
(System No.)—3012-06	6	6	12	18	12¾	8%	22½	6	12	18	18¾	10%	33¾	9
(System No.)—3024-06	6	6	24	30	18¾	10¼	34½	9¾	24	30	24¾	11¼	45¼	12¼
(System No.)—3036-06	6	6							36	42	30¾	13%	57¼	15½
(System No.)—3012-09	9	9	12	21	14¼	11%	24	6¾	12	21	19¾	13%	35¼	9½
(System No.)—3024-09	9	9	24	33	20¼	13¼	36	9¾	24	33	25%	14¾	47¼	12¾
(System No.)—3036-09	9	9							36	45	31¾	16%	59¼	15¾
(System No.)—3012-12	12	12	12	24	15¾	14%	25½	6%	12	24	21¾	16%	36¾	9¾
(System No.)—3024-12	12	12	24	36	21¾	16¼	37½	10	24	36	27¾	17¾	48¾	13
(System No.)—3036-12	12	12							36	48	33¾	19%	60¾	16¼
(System No.)—3012-18	18	18	12	30	18¾	20%	28½	7%	12	30	24¾	22%	39¾	10%
(System No.)—3024-18	18	18	24	42	24¾	22¼	40½	10¾	24	42	30¾	23¾	51¾	13¾
(System No.)—3036-18	18	18							36	54	36¾	25%	63¾	17
(System No.)—3012-24	24	24	12	36	21¾	26%	31½	8¾	12	36	27¾	28%	42¾	11½
(System No.)—3024-24	24	24	24	48	27¾	28¼	43½	11¾	24	48	33¾	29¾	54¾	14¾
(System No.)—3036-24	24	24							36	60	39¾	31%	66¾	17¾
(System No.)—3012-30	30	30							12	42	30¾	34¾	45¾	12¾
(System No.)—3024-30	30	30							24	54	36¾	35¾	57¾	15¾
(System No.)—3036-30	30	30							36	66	42¾	37¾	69¾	18¾

Table 11—DIMENSIONS—HORIZONTAL TEE (Inches)

CATALOG NO.		BASKET & LADDER				RIGIDRACK			
Prefix	Index	W	R	A	B	W	R	A	B
(System No.)—	2012-06	6	12	34	20	6	12	40	23
(System No.)—	2024-06	6	24	58	32	6	24	64	35
(System No.)—	2036-06	6				6	36	88	47
(System No.)—	2012-09	9	12	37	23	9	12	43	26
(System No.)—	2024-09	9	24	61	35	9	24	67	38
(System No.)—	2036-09	9				9	36	91	50
(System No.)—	2012-12	12	12	40	26	12	12	46	29
(System No.)—	2024-12	12	24	64	38	12	24	70	41
(System No.)—	2036-12	12				12	36	94	53
(System No.)—	2012-18	18	12	46	32	18	12	52	35
(System No.)—	2024-18	18	24	70	44	18	24	76	47
(System No.)—	2036-18	18				18	36	100	59
(System No.)—	2012-24	24	12	52	38	24	12	58	41
(System No.)—	2024-24	24	24	76	50	24	24	82	53
(System No.)—	2036-24	24				24	36	106	65
(System No.)—	2012-30					30	12	64	47
(System No.)—	2024-30					30	24	88	59
(System No.)—	2036-30					30	36	112	71

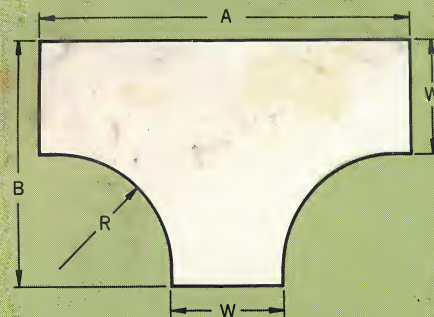


Table 12—DIMENSIONS—HORIZONTAL CROSS (Inches)

CATALOG NO.		BASKET & LADDER			RIGIDRACK		
Prefix	Index	W	R	A	W	R	A
(System No.)—	1012-06	6	12	34	6	12	40
(System No.)—	1024-06	6	24	58	6	24	64
(System No.)—	1036-06	6			6	36	88
(System No.)—	1012-09	9	12	37	9	12	43
(System No.)—	1024-09	9	24	61	9	24	67
(System No.)—	1036-09	9			9	36	91
(System No.)—	1012-12	12	12	40	12	12	46
(System No.)—	1024-12	12	24	64	12	24	70
(System No.)—	1036-12	12			12	36	94
(System No.)—	1012-18	18	12	46	18	12	52
(System No.)—	1024-18	18	24	70	18	24	76
(System No.)—	1036-18	18			18	36	100
(System No.)—	1012-24	24	12	52	24	12	58
(System No.)—	1024-24	24	24	76	24	24	82
(System No.)—	1036-24	24			24	36	106
(System No.)—	1012-30				30	12	64
(System No.)—	1024-30				30	24	88
(System No.)—	1036-30				30	36	112

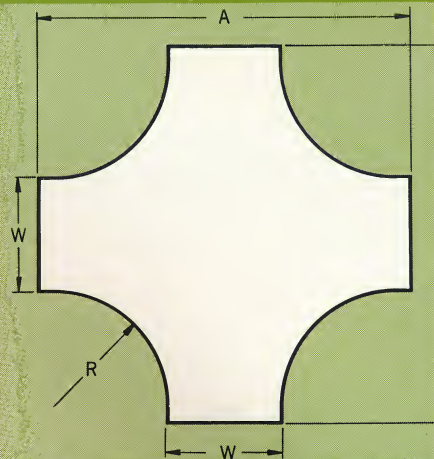


Table 13—DIMENSIONS—45° WYE BRANCH (Inches)

CATALOG NO.			W	A	B	C
Prefix	L.H. Index	R.H. Index				
(System No.)—	4012-06	4112-06	6	19½	7½	13½
(System No.)—	4012-09	4112-09	9	23½	10	19
(System No.)—	4012-12	4112-12	12	27½	12½	24½
(System No.)—	4012-18	4112-18	18	36½	16½	34½
(System No.)—	4012-24	4112-24	24	44½	20½	44½

Offered for Basket and Ladder Systems only. Left hand is illustrated.

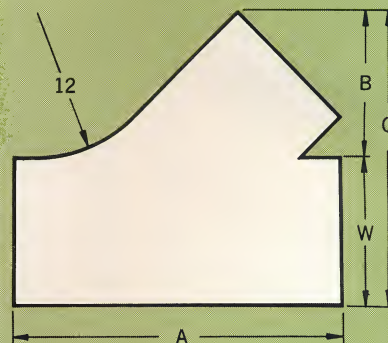
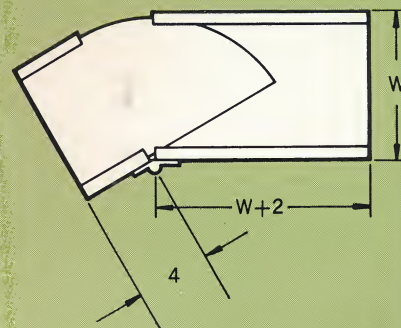


Table 14—ADJUSTABLE HORIZONTAL ELBOW (Inches)

CATALOG NO.		Width
Prefix	Index	
(System No.)—	0401-06	6
(System No.)—	0401-09	9
(System No.)—	0401-12	12
(System No.)—	0401-18	18
(System No.)—	0401-24	24

Offered for Basket and Ladder Systems only.



NOTE:

Certain items are offered for Basket and Ladder systems only, others for Rigidrack only. Be sure to use proper System Number Prefix so that the part ordered will mate with straight lengths.

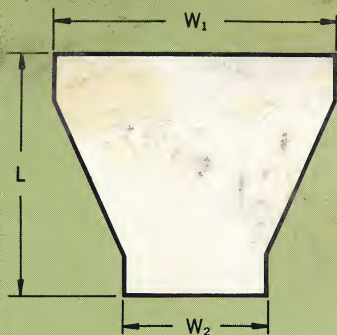


Table 15—DIMENSIONS—STRAIGHT REDUCER (Inches)

CATALOG NO.		Reduction		L	L		CATALOG NO.		Reduction		L	L
Prefix	Index	W1	W2	B.&L.	R.R.		Prefix	Index	W1	W2	B.&L.	R.R.
(System No.)—0109-06		9	to 6	10	24		(System No.)—0124-12		24	to 12	10	24
(System No.)—0112-06		12	to 6	10	24		(System No.)—0124-18		24	to 18	10	24
(System No.)—0112-09		12	to 9	10	24		(System No.)—0130-06		30	to 6		24
(System No.)—0118-06		18	to 6	10	24		(System No.)—0130-09		30	to 9		24
(System No.)—0118-09		18	to 9	10	24		(System No.)—0130-12		30	to 12		24
(System No.)—0118-12		18	to 12	10	24		(System No.)—0130-18		30	to 18		24
(System No.)—0124-06		24	to 6	10	24		(System No.)—0130-24		30	to 24		24
(System No.)—0124-09		24	to 9	10	24							

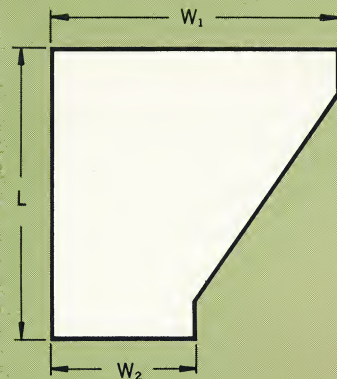


Table 16—DIMENSIONS—RIGHT-HAND REDUCER (Inches)

CATALOG NO.		Reduction		L	L		CATALOG NO.		Reduction		L	L
Prefix	Index	W1	W2	B.&L.	R.R.		Prefix	Index	W1	W2	B.&L.	R.R.
(System No.)—0809-06		9	to 6	12	24		(System No.)—0824-12		24	to 12	12	24
(System No.)—0812-06		12	to 6	12	24		(System No.)—0824-18		24	to 18	12	24
(System No.)—0812-09		12	to 9	12	24		(System No.)—0830-06		30	to 6		24
(System No.)—0818-06		18	to 6	12	24		(System No.)—0830-09		30	to 9		24
(System No.)—0818-09		18	to 9	12	24		(System No.)—0830-12		30	to 12		24
(System No.)—0818-12		18	to 12	12	24		(System No.)—0830-18		30	to 18		24
(System No.)—0824-06		24	to 6	12	24		(System No.)—0830-24		30	to 24		24
(System No.)—0824-09		24	to 9	12	24							

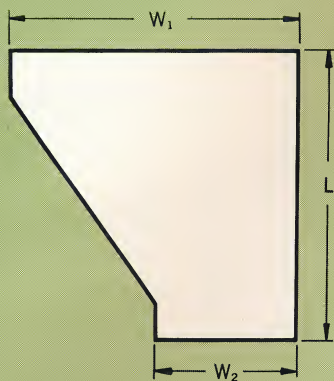


Table 17—DIMENSIONS—LEFT-HAND REDUCER (Inches)

Catalog No.		Reduction		L	L		Catalog No.		Reduction		L	L
Index		W1	W2	B.&L.	R.R.		Index		W1	W2	B.&L.	R.R.
(Add System No. Prefix) —0709-06		9	to 6	12	24		(Add System No. Prefix) —0724-12		24	to 12	12	24
—0712-06		12	to 6	12	24		—0724-18		24	to 18	12	24
—0712-09		12	to 9	12	24		—0730-06		30	to 6		24
—0718-06		18	to 6	12	24		—0730-09		30	to 9		24
—0718-09		18	to 9	12	24		—0730-12		30	to 12		24
—0718-12		18	to 12	12	24		—0730-18		30	to 18		24
—0724-06		24	to 6	12	24		—0730-24		30	to 24		24
—0724-09		24	to 9	12	24							

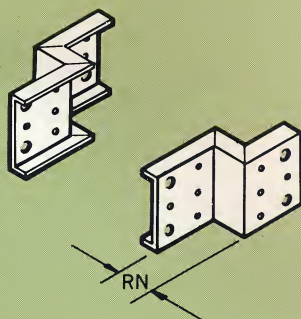


Table 18—DIMENSIONS—STRAIGHT REDUCER CONNECTOR (Inches)

Catalog No.		Reduction	Hardware			Catalog No.		Reduction	Hardware	
Index		Rn				Index		Rn		
(System No. Prefix) —1303-03		3	1/4" dia. drive rivets			(System No. Prefix) —1303-12		12	1/4" dia. drive rivets	
—1303-04		3	3/8" dia. bolts & nuts			—1303-13		12	3/8" dia. bolts & nuts	
—1303-06		6	1/4" dia. drive rivets			—1303-15		15	1/4" dia. drive rivets	
—1303-07		6	3/8" dia. bolts & nuts			—1303-16		15	3/8" dia. bolts & nuts	
—1303-09		9	1/4" dia. drive rivets			—1303-18		18	1/4" dia. drive rivets	
—1303-10		9	3/8" dia. bolts & nuts			—1303-19		18	3/8" dia. bolts & nuts	

Straight Reducer not offered in Rigidrack System

Table 19—DIMENSIONS—OFFSET REDUCER CONNECTOR (Inches)

Catalog No. Index	Reduction Rn	Hardware	Catalog No. Index	Reduction Rn	Hardware
(System No. Prefix) —1304-03	3	1/4" dia. drive rivets	(System No. Prefix) —1304-12	12	1/4" dia. drive rivets
—1304-04	3	3/8" dia. bolts & nuts	—1304-13	12	3/8" dia. bolts & nuts
—1304-06	6	1/4" dia. drive rivets	—1304-15	15	1/4" dia. drive rivets
—1304-07	6	3/8" dia. bolts & nuts	—1304-16	15	3/8" dia. bolts & nuts
—1304-09	9	1/4" dia. drive rivets	—1304-18	18	1/4" dia. drive rivets
—1304-10	9	3/8" dia. bolts & nuts	—1304-19	18	3/8" dia. bolts & nuts

Offset Reducer Connector not offered in Rigidrack System. Invert part for left- or right-hand position.

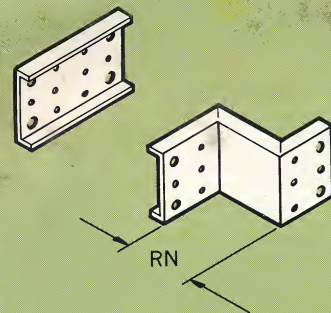


Table 20—ADJUSTABLE HORIZONTAL CONNECTOR (Inches)

CATALOG NO. Prefix Index	W	HARDWARE	USE WITH
(System No.)—1305-01	6,9,12	1/4" Diameter Drive Rivets	Basket & Ladder Systems only
(System No.)—1306-01	18,24	1/4" Diameter Drive Rivets	
(System No.)—1305-02	6,9,12	3/8" Diameter Bolts & Nuts	All Systems
(System No.)—1306-02	18,24,30	3/8" Diameter Bolts & Nuts	

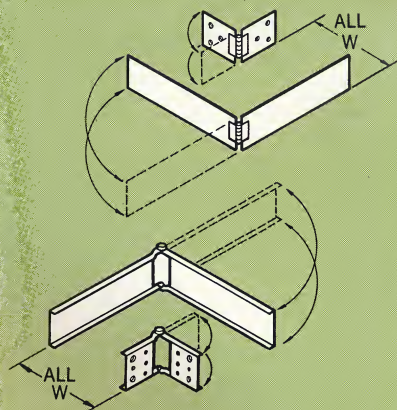


Table 21—ADJUSTABLE RISER CONNECTOR

CATALOG NO. Prefix Index	W	HARDWARE	USE WITH
(System No.)—1307-01	ALL	1/4" Diameter Drive Rivets	Basket & Ladder Systems only
(System No.)—1307-02	ALL	3/8" Diameter Bolts & Nuts	All Systems

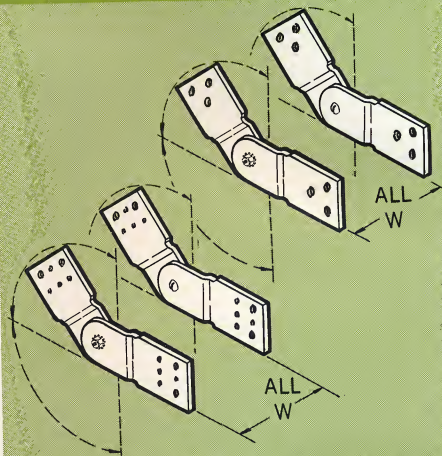
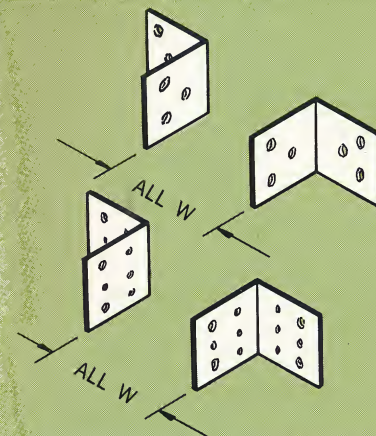


Table 22—ANGLE CONNECTOR

CATALOG NO. Prefix Index	W	HARDWARE	USE WITH
(System No.)—1320-01	ALL	1/4" Diameter Drive Rivets	Basket & Ladder Systems only
(System No.)—1320-02	ALL	3/8" Diameter Bolts & Nuts	All Systems



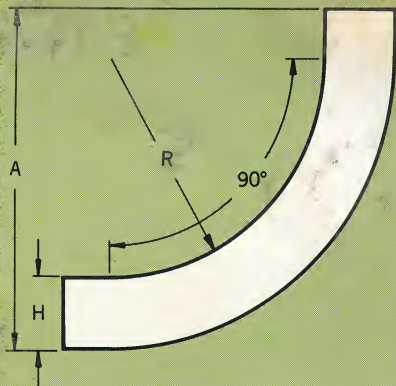


Table 23—DIMENSIONS—90° INSIDE VERTICAL ELBOW (Inches)

CATALOG NO.		W	BASKET & LADDER			RIGIDRACK		
Prefix	Index		H	R	A	H	R	A
(System No.)—9112-06		6	3 $\frac{3}{8}$	12	17 $\frac{3}{8}$	4	12	21
(System No.)—9124-06		6	3 $\frac{3}{8}$	24	29 $\frac{3}{8}$	4	24	33
(System No.)—9136-06		6				4	36	45
(System No.)—9112-09		9	3 $\frac{3}{8}$	12	17 $\frac{3}{8}$	4	12	21
(System No.)—9124-09		9	3 $\frac{3}{8}$	24	29 $\frac{3}{8}$	4	24	33
(System No.)—9136-09		9				4	36	45
(System No.)—9112-12		12	3 $\frac{3}{8}$	12	17 $\frac{3}{8}$	4	12	21
(System No.)—9124-12		12	3 $\frac{3}{8}$	24	29 $\frac{3}{8}$	4	24	33
(System No.)—9136-12		12				4	36	45
(System No.)—9112-18		18	3 $\frac{3}{8}$	12	17 $\frac{3}{8}$	4	12	21
(System No.)—9124-18		18	3 $\frac{3}{8}$	24	29 $\frac{3}{8}$	4	24	33
(System No.)—9136-18		18				4	36	45
(System No.)—9112-24		24	3 $\frac{3}{8}$	12	17 $\frac{3}{8}$	4	12	21
(System No.)—9124-24		24	3 $\frac{3}{8}$	24	29 $\frac{3}{8}$	4	24	33
(System No.)—9136-24		24				4	36	45
(System No.)—9112-30		30				4	12	21
(System No.)—9124-30		30				4	24	33
(System No.)—9136-30		30				4	36	45

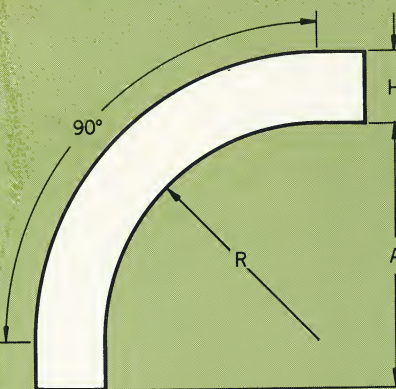


Table 24—DIMENSIONS—90° OUTSIDE VERTICAL ELBOW (Inches)

CATALOG NO.		W	BASKET & LADDER			RIGIDRACK		
Prefix	Index		H	R	A	H	R	A
(System No.)—9212-06		6	3 $\frac{3}{8}$	12	14	4	12	17
(System No.)—9224-06		6	3 $\frac{3}{8}$	24	26	4	24	29
(System No.)—9236-06		6				4	36	41
(System No.)—9212-09		9	3 $\frac{3}{8}$	12	14	4	12	17
(System No.)—9224-09		9	3 $\frac{3}{8}$	24	26	4	24	29
(System No.)—9236-09		9				4	36	41
(System No.)—9212-12		12	3 $\frac{3}{8}$	12	14	4	12	17
(System No.)—9224-12		12	3 $\frac{3}{8}$	24	26	4	24	29
(System No.)—9236-12		12				4	36	41
(System No.)—9212-18		18	3 $\frac{3}{8}$	12	14	4	12	17
(System No.)—9224-18		18	3 $\frac{3}{8}$	24	26	4	24	29
(System No.)—9236-18		18				4	36	41
(System No.)—9212-24		24	3 $\frac{3}{8}$	12	14	4	12	17
(System No.)—9224-24		24	3 $\frac{3}{8}$	24	26	4	24	29
(System No.)—9236-24		24				4	36	41
(System No.)—9212-30		30				4	12	17
(System No.)—9224-30		30				4	24	29
(System No.)—9236-30		30				4	36	41

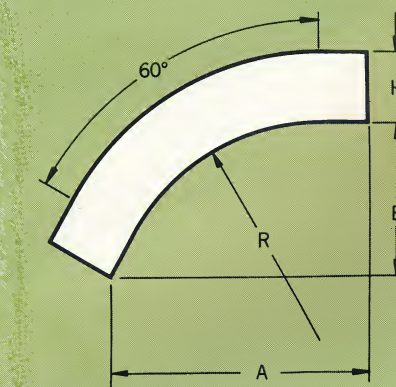


Table 25—DIMENSIONS—60° INSIDE VERTICAL ELBOW (Inches)

CATALOG NO.		W	BASKET & LADDER				RIGIDRACK			
Prefix	Index		H	R	A	B	H	R	A	B
(System No.)—6112-06		6	3 $\frac{3}{8}$	12	16 $\frac{3}{8}$	9 $\frac{1}{2}$	4	12	21 $\frac{3}{8}$	12 $\frac{3}{8}$
(System No.)—6124-06		6	3 $\frac{3}{8}$	24	26 $\frac{3}{4}$	15 $\frac{1}{2}$	4	24	31 $\frac{3}{4}$	18 $\frac{3}{8}$
(System No.)—6136-06		6					4	36	42 $\frac{3}{8}$	24 $\frac{3}{8}$
(System No.)—6112-09		9	3 $\frac{3}{8}$	12	16 $\frac{3}{8}$	9 $\frac{1}{2}$	4	12	21 $\frac{3}{8}$	12 $\frac{3}{8}$
(System No.)—6124-09		9	3 $\frac{3}{8}$	24	26 $\frac{3}{4}$	15 $\frac{1}{2}$	4	24	31 $\frac{3}{4}$	18 $\frac{3}{8}$
(System No.)—6136-09		9					4	36	42 $\frac{3}{8}$	24 $\frac{3}{8}$
(System No.)—6112-12		12	3 $\frac{3}{8}$	12	16 $\frac{3}{8}$	9 $\frac{1}{2}$	4	12	21 $\frac{3}{8}$	12 $\frac{3}{8}$
(System No.)—6124-12		12	3 $\frac{3}{8}$	24	26 $\frac{3}{4}$	15 $\frac{1}{2}$	4	24	31 $\frac{3}{4}$	18 $\frac{3}{8}$
(System No.)—6136-12		12					4	36	42 $\frac{3}{8}$	24 $\frac{3}{8}$
(System No.)—6112-18		18	3 $\frac{3}{8}$	12	16 $\frac{3}{8}$	9 $\frac{1}{2}$	4	12	21 $\frac{3}{8}$	12 $\frac{3}{8}$
(System No.)—6124-18		18	3 $\frac{3}{8}$	24	26 $\frac{3}{4}$	15 $\frac{1}{2}$	4	24	31 $\frac{3}{4}$	18 $\frac{3}{8}$
(System No.)—6136-18		18					4	36	42 $\frac{3}{8}$	24 $\frac{3}{8}$
(System No.)—6112-24		24	3 $\frac{3}{8}$	12	16 $\frac{3}{8}$	9 $\frac{1}{2}$	4	12	21 $\frac{3}{8}$	12 $\frac{3}{8}$
(System No.)—6124-24		24	3 $\frac{3}{8}$	24	26 $\frac{3}{4}$	15 $\frac{1}{2}$	4	24	31 $\frac{3}{4}$	18 $\frac{3}{8}$
(System No.)—6136-24		24					4	36	42 $\frac{3}{8}$	24 $\frac{3}{8}$
(System No.)—6112-30		30					4	12	21 $\frac{3}{8}$	12 $\frac{3}{8}$
(System No.)—6124-30		30					4	24	31 $\frac{3}{4}$	18 $\frac{3}{8}$
(System No.)—6136-30		30					4	36	42 $\frac{3}{8}$	24 $\frac{3}{8}$

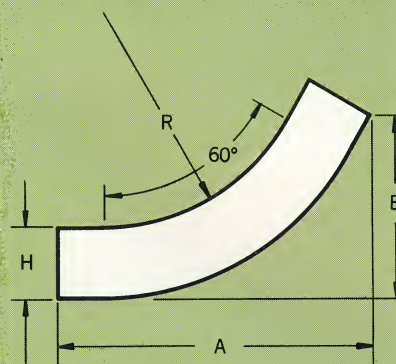


Table 26—DIMENSIONS—60° OUTSIDE VERTICAL ELBOW (Inches)

CATALOG NO.		W	BASKET & LADDER				RIGIDRACK			
Prefix	Index		H	R	A	B	H	R	A	B
(System No.)—6212-06		6	3 $\frac{3}{8}$	12	13 $\frac{3}{8}$	7 $\frac{3}{4}$	4	12	17 $\frac{3}{8}$	10 $\frac{3}{8}$
(System No.)—6224-06		6	3 $\frac{3}{8}$	24	23 $\frac{3}{8}$	13 $\frac{3}{4}$	4	24	28 $\frac{3}{4}$	16 $\frac{3}{8}$
(System No.)—6236-06		6					4	36	38 $\frac{3}{8}$	22 $\frac{3}{8}$
(System No.)—6212-09		9	3 $\frac{3}{8}$	12	13 $\frac{3}{8}$	7 $\frac{3}{4}$	4	12	17 $\frac{3}{8}$	10 $\frac{3}{8}$
(System No.)—6224-09		9	3 $\frac{3}{8}$	24	23 $\frac{3}{8}$	13 $\frac{3}{4}$	4	24	28 $\frac{3}{4}$	16 $\frac{3}{8}$
(System No.)—6236-09		9					4	36	38 $\frac{3}{8}$	22 $\frac{3}{8}$
(System No.)—6212-12		12	3 $\frac{3}{8}$	12	13 $\frac{3}{8}$	7 $\frac{3}{4}$	4	12	17 $\frac{3}{8}$	10 $\frac{3}{8}$
(System No.)—6224-12		12	3 $\frac{3}{8}$	24	23 $\frac{3}{8}$	13 $\frac{3}{4}$	4	24	28 $\frac{3}{4}$	16 $\frac{3}{8}$
(System No.)—6236-12		12					4	36	38 $\frac{3}{8}$	22 $\frac{3}{8}$
(System No.)—6212-18		18	3 $\frac{3}{8}$	12	13 $\frac{3}{8}$	7 $\frac{3}{4}$	4	12	17 $\frac{3}{8}$	10 $\frac{3}{8}$
(System No.)—6224-18		18	3 $\frac{3}{8}$	24	23 $\frac{3}{8}$	13 $\frac{3}{4}$	4	24	28 $\frac{3}{4}$	16 $\frac{3}{8}$
(System No.)—6236-18		18					4	36	38 $\frac{3}{8}$	22 $\frac{3}{8}$
(System No.)—6212-24		24	3 $\frac{3}{8}$	12	13 $\frac{3}{8}$	7 $\frac{3}{4}$	4	12	17 $\frac{3}{8}$	10 $\frac{3}{8}$
(System No.)—6224-24		24	3 $\frac{3}{8}$	24	23 $\frac{3}{8}$	13 $\frac{3}{4}$	4	24	28 $\frac{3}{4}$	16 $\frac{3}{8}$
(System No.)—6236-24		24					4	36	38 $\frac{3}{8}$	22 $\frac{3}{8}$
(System No.)—6212-30		30					4	12	17 $\frac{3}{8}$	10 $\frac{3}{8}$
(System No.)—6224-30		30					4	24	28 $\frac{3}{4}$	16 $\frac{3}{8}$
(System No.)—6236-30		30					4	36	38 $\frac{3}{8}$	22 $\frac{3}{8}$

Table 27—DIMENSIONS—45° INSIDE VERTICAL ELBOW (Inches)

CATALOG NO.		W	BASKET & LADDER				RIGIDRACK			
Prefix	Index		H	R	A	B	H	R	A	B
(System No.)	—4612-06	6	3 $\frac{3}{8}$	12	14 $\frac{1}{4}$	6	4	12	19 $\frac{7}{8}$	8 $\frac{1}{4}$
(System No.)	—4624-06	6	3 $\frac{3}{8}$	24	22 $\frac{3}{4}$	9 $\frac{1}{2}$	4	24	28 $\frac{3}{8}$	11 $\frac{3}{4}$
(System No.)	—4636-06	6					4	36	36 $\frac{7}{8}$	15 $\frac{1}{4}$
(System No.)	—4612-09	9	3 $\frac{3}{8}$	12	14 $\frac{1}{4}$	6	4	12	19 $\frac{7}{8}$	8 $\frac{1}{4}$
(System No.)	—4624-09	9	3 $\frac{3}{8}$	24	22 $\frac{3}{4}$	9 $\frac{1}{2}$	4	24	28 $\frac{3}{8}$	11 $\frac{3}{4}$
(System No.)	—4636-09	9					4	36	36 $\frac{7}{8}$	15 $\frac{1}{4}$
(System No.)	—4612-12	12	3 $\frac{3}{8}$	12	14 $\frac{1}{4}$	6	4	12	19 $\frac{7}{8}$	8 $\frac{1}{4}$
(System No.)	—4624-12	12	3 $\frac{3}{8}$	24	22 $\frac{3}{4}$	9 $\frac{1}{2}$	4	24	28 $\frac{3}{8}$	11 $\frac{3}{4}$
(System No.)	—4636-12	12					4	36	36 $\frac{7}{8}$	15 $\frac{1}{4}$
(System No.)	—4612-18	18	3 $\frac{3}{8}$	12	14 $\frac{1}{4}$	6	4	12	19 $\frac{7}{8}$	8 $\frac{1}{4}$
(System No.)	—4624-18	18	3 $\frac{3}{8}$	24	22 $\frac{3}{4}$	9 $\frac{1}{2}$	4	24	28 $\frac{3}{8}$	11 $\frac{3}{4}$
(System No.)	—4636-18	18					4	36	36 $\frac{7}{8}$	15 $\frac{1}{4}$
(System No.)	—4612-24	24	3 $\frac{3}{8}$	12	14 $\frac{1}{4}$	6	4	12	19 $\frac{7}{8}$	8 $\frac{1}{4}$
(System No.)	—4624-24	24	3 $\frac{3}{8}$	24	22 $\frac{3}{4}$	9 $\frac{1}{2}$	4	24	28 $\frac{3}{8}$	11 $\frac{3}{4}$
(System No.)	—4636-24	24					4	36	36 $\frac{7}{8}$	15 $\frac{1}{4}$
(System No.)	—4612-30	30					4	12	19 $\frac{7}{8}$	8 $\frac{1}{4}$
(System No.)	—4624-30	30					4	24	28 $\frac{3}{8}$	11 $\frac{3}{4}$
(System No.)	—4636-30	30					4	36	36 $\frac{7}{8}$	15 $\frac{1}{4}$

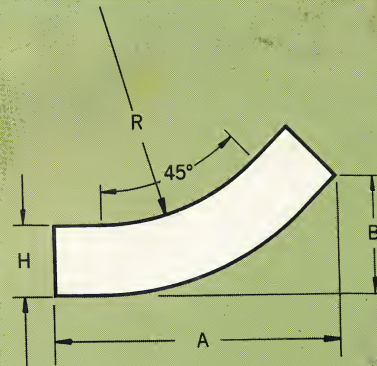


Table 28—DIMENSIONS—45° OUTSIDE VERTICAL ELBOW (Inches)

CATALOG NO.		W	BASKET & LADDER				RIGIDRACK			
Prefix	Index		H	R	A	B	H	R	A	B
(System No.)	—4712-06	6	3½	12	11⅞	5	4	12	17	7½
(System No.)	—4724-06	6	3½	24	20⅞	8½	4	24	25½	10⅞
(System No.)	—4736-06	6					4	36	34	14⅞
(System No.)	—4712-09	9	3½	12	11⅞	5	4	12	17	7½
(System No.)	—4724-09	9	3½	24	20⅞	8½	4	24	25½	10⅞
(System No.)	—4736-09	9					4	36	34	14⅞
(System No.)	—4712-12	12	3½	12	11⅞	5	4	12	17	7½
(System No.)	—4724-12	12	3½	24	20⅞	8½	4	24	25½	10⅞
(System No.)	—4736-12	12					4	36	34	14⅞
(System No.)	—4712-18	18	3½	12	11⅞	5	4	12	17	7½
(System No.)	—4724-18	18	3½	24	20⅞	8½	4	24	25½	10⅞
(System No.)	—4736-18	18					4	36	34	14⅞
(System No.)	—4712-24	24	3½	12	11⅞	5	4	12	17	7½
(System No.)	—4724-24	24	3½	24	20⅞	8½	4	24	25½	10⅞
(System No.)	—4736-24	24					4	36	34	14⅞
(System No.)	—4712-30	30					4	12	17	7½
(System No.)	—4724-30	30					4	24	25½	10⅞
(System No.)	—4736-30	30					4	36	34	14⅞

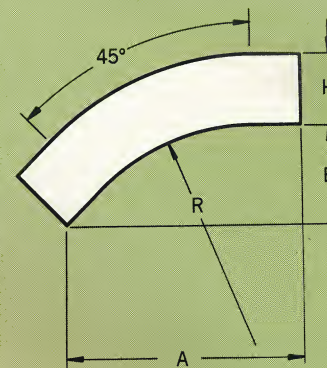


Table 29—DIMENSIONS—30° INSIDE VERTICAL ELBOW (Inches)

CATALOG NO.		W	BASKET & LADDER				RIGIDRACK			
Prefix	Index		H	R	A	B	H	R	A	B
(System No.)—	3112-06	6	3 $\frac{3}{8}$	12	11 $\frac{1}{2}$	3 $\frac{3}{8}$	4	12	17 $\frac{3}{8}$	4 $\frac{5}{8}$
(System No.)—	3124-06	6	3 $\frac{3}{8}$	24	17 $\frac{1}{2}$	4 $\frac{3}{4}$	4	24	23 $\frac{3}{8}$	6 $\frac{1}{4}$
(System No.)—	3136-06	6					4	36	29 $\frac{3}{8}$	7 $\frac{1}{2}$
(System No.)—	3112-09	9	3 $\frac{3}{8}$	12	11 $\frac{1}{2}$	3 $\frac{3}{8}$	4	12	17 $\frac{3}{8}$	4 $\frac{5}{8}$
(System No.)—	3124-09	9	3 $\frac{3}{8}$	24	17 $\frac{1}{2}$	4 $\frac{3}{4}$	4	24	23 $\frac{3}{8}$	6 $\frac{1}{4}$
(System No.)—	3136-09	9					4	36	29 $\frac{3}{8}$	7 $\frac{1}{2}$
(System No.)—	3112-12	12	3 $\frac{3}{8}$	12	11 $\frac{1}{2}$	3 $\frac{3}{8}$	4	12	17 $\frac{3}{8}$	4 $\frac{5}{8}$
(System No.)—	3124-12	12	3 $\frac{3}{8}$	24	17 $\frac{1}{2}$	4 $\frac{3}{4}$	4	24	23 $\frac{3}{8}$	6 $\frac{1}{4}$
(System No.)—	3136-12	12					4	36	29 $\frac{3}{8}$	7 $\frac{1}{2}$
(System No.)—	3112-18	18	3 $\frac{3}{8}$	12	11 $\frac{1}{2}$	3 $\frac{3}{8}$	4	12	17 $\frac{3}{8}$	4 $\frac{5}{8}$
(System No.)—	3124-18	18	3 $\frac{3}{8}$	24	17 $\frac{1}{2}$	4 $\frac{3}{4}$	4	24	23 $\frac{3}{8}$	6 $\frac{1}{4}$
(System No.)—	3136-18	18					4	36	29 $\frac{3}{8}$	7 $\frac{1}{2}$
(System No.)—	3112-24	24	3 $\frac{3}{8}$	12	11 $\frac{1}{2}$	3 $\frac{3}{8}$	4	12	17 $\frac{3}{8}$	4 $\frac{5}{8}$
(System No.)—	3124-24	24	3 $\frac{3}{8}$	24	17 $\frac{1}{2}$	4 $\frac{3}{4}$	4	24	23 $\frac{3}{8}$	6 $\frac{1}{4}$
(System No.)—	3136-24	24					4	36	29 $\frac{3}{8}$	7 $\frac{1}{2}$
(System No.)—	3112-30	30					4	12	17 $\frac{3}{8}$	4 $\frac{5}{8}$
(System No.)—	3124-30	30					4	24	23 $\frac{3}{8}$	6 $\frac{1}{4}$
(System No.)—	3136-30	30					4	36	29 $\frac{3}{8}$	7 $\frac{1}{2}$

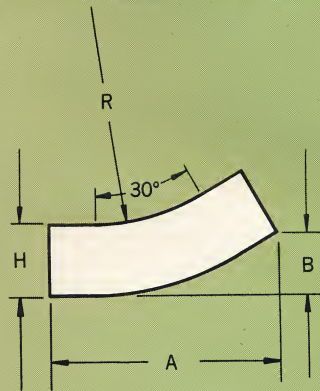
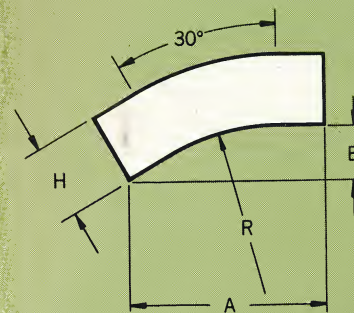


Table 30—DIMENSIONS—30° OUTSIDE VERTICAL ELBOW (Inches)

CATALOG NO.		W	BASKET & LADDER				RIGIDRACK			
Prefix	Index		H	R	A	B	H	R	A	B
(System No.)	—3212-06	6	3 $\frac{3}{8}$	12	9 $\frac{3}{4}$	2 $\frac{5}{8}$	4	12	15 $\frac{3}{8}$	4 $\frac{1}{2}$
(System No.)	—3224-06	6	3 $\frac{3}{8}$	24	15 $\frac{3}{4}$	4 $\frac{1}{4}$	4	24	21 $\frac{3}{8}$	5 $\frac{1}{4}$
(System No.)	—3236-06	6					4	36	27 $\frac{3}{8}$	7 $\frac{1}{2}$
(System No.)	—3212-09	9	3 $\frac{3}{8}$	12	9 $\frac{3}{4}$	2 $\frac{5}{8}$	4	12	15 $\frac{3}{8}$	4 $\frac{1}{2}$
(System No.)	—3224-09	9	3 $\frac{3}{8}$	24	15 $\frac{3}{4}$	4 $\frac{1}{4}$	4	24	21 $\frac{3}{8}$	5 $\frac{1}{4}$
(System No.)	—3236-09	9					4	36	27 $\frac{3}{8}$	7 $\frac{1}{2}$
(System No.)	—3212-12	12	3 $\frac{3}{8}$	12	9 $\frac{3}{4}$	2 $\frac{5}{8}$	4	12	15 $\frac{3}{8}$	4 $\frac{1}{2}$
(System No.)	—3224-12	12	3 $\frac{3}{8}$	24	15 $\frac{3}{4}$	4 $\frac{1}{4}$	4	24	21 $\frac{3}{8}$	5 $\frac{1}{4}$
(System No.)	—3236-12	12					4	36	27 $\frac{3}{8}$	7 $\frac{1}{2}$
(System No.)	—3212-18	18	3 $\frac{3}{8}$	12	9 $\frac{3}{4}$	2 $\frac{5}{8}$	4	12	15 $\frac{3}{8}$	4 $\frac{1}{2}$
(System No.)	—3224-18	18	3 $\frac{3}{8}$	24	15 $\frac{3}{4}$	4 $\frac{1}{4}$	4	24	21 $\frac{3}{8}$	5 $\frac{1}{4}$
(System No.)	—3236-18	18					4	36	27 $\frac{3}{8}$	7 $\frac{1}{2}$
(System No.)	—3212-24	24	3 $\frac{3}{8}$	12	9 $\frac{3}{4}$	2 $\frac{5}{8}$	4	12	15 $\frac{3}{8}$	4 $\frac{1}{2}$
(System No.)	—3224-24	24	3 $\frac{3}{8}$	24	15 $\frac{3}{4}$	4 $\frac{1}{4}$	4	24	21 $\frac{3}{8}$	5 $\frac{1}{4}$
(System No.)	—3236-24	24					4	36	27 $\frac{3}{8}$	7 $\frac{1}{2}$
(System No.)	—3212-30	30					4	12	15 $\frac{3}{8}$	4 $\frac{1}{2}$
(System No.)	—3224-30	30					4	24	21 $\frac{3}{8}$	5 $\frac{1}{4}$
(System No.)	—3236-30	30					4	36	27 $\frac{3}{8}$	7 $\frac{1}{2}$



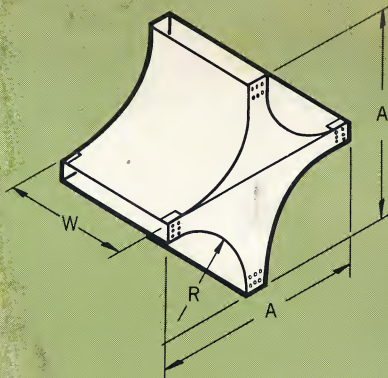


Table 31—DIMENSIONS—VERTICAL CROSS (Inches)

CATALOG NO. Prefix Index	W	R	Dimension	Use
			A	
(System No.)—1112-06 (System No.)—1124-06	6 6	12 24	31⅜ 55⅝	For use with Basket and Ladder Systems Only
(System No.)—1112-09 (System No.)—1124-09	9 9	12 24	31⅜ 55⅝	
(System No.)—1112-12 (System No.)—1124-12	12 12	12 24	31⅜ 55⅝	
(System No.)—1112-18 (System No.)—1124-18	18 18	12 24	31⅜ 55⅝	
(System No.)—1112-24 (System No.)—1124-24	24 24	12 24	31⅜ 55⅝	

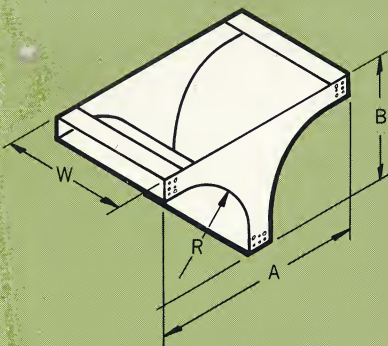


Table 32—DIMENSIONS—VERTICAL TEE (Inches)

CATALOG NO. Prefix Index	W	R	Dimensions		Use
			A	B	
(System No.)—2112-06 (System No.)—2124-06	6 6	12 24	31⅜ 55⅝	17⅞ 29⅞	For use with Basket and Ladder Systems Only
(System No.)—2112-09 (System No.)—2124-09	9 9	12 24	31⅜ 55⅝	17⅞ 29⅞	
(System No.)—2112-12 (System No.)—2124-12	12 12	12 24	31⅜ 55⅝	17⅞ 29⅞	
(System No.)—2112-18 (System No.)—2124-18	18 18	12 24	31⅜ 55⅝	17⅞ 29⅞	
(System No.)—2112-24 (System No.)—2124-24	24 24	12 24	31⅜ 55⅝	17⅞ 29⅞	

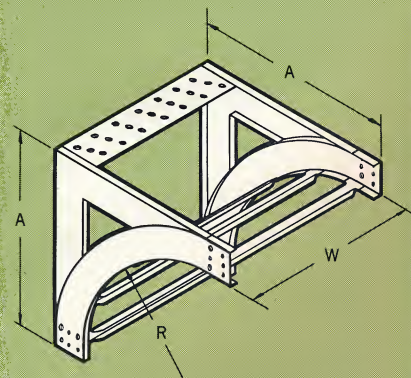


Table 33—VERTICAL CABLE SUPPORT ELBOW—BASKET & LADDER (Inches)

CATALOG NO. Prefix Index	W	Number Hooks	R	A
(System No.)—9312-06 (System No.)—9324-06	6 6	9 9	12 24	17⅞ 29⅞
(System No.)—9312-09 (System No.)—9324-09	9 9	15 15	12 24	17⅞ 29⅞
(System No.)—9312-12 (System No.)—9324-12	12 12	21 21	12 24	17⅞ 29⅞
(System No.)—9312-18 (System No.)—9324-18	18 18	33 33	12 24	17⅞ 29⅞
(System No.)—9312-24 (System No.)—9324-24	24 24	45 45	12 24	17⅞ 29⅞

Plated Steel Hooks to be purchased separately. Catalog No. 1841-1.

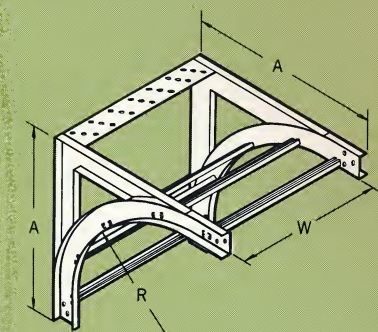


Table 34—VERTICAL CABLE SUPPORT ELBOW—RIGIDRACK (Inches)

CATALOG NO. Prefix Index	W	Hooks	R	A	CATALOG NO. Prefix Index	W	Hooks	R	A
(System No.)—9312-06 (System No.)—9324-06 (System No.)—9336-06	6 6 6	10 10 10	12 24 36	21 33 45	(System No.)—9312-18 (System No.)—9324-18 (System No.)—9336-18	18 18 18	34 34 34	12 24 36	21 33 45
(System No.)—9312-09 (System No.)—9324-09 (System No.)—9336-09	9 9 9	16 16 16	12 24 36	21 33 45	(System No.)—9312-24 (System No.)—9324-24 (System No.)—9336-24	24 24 24	46 46 46	12 24 36	21 33 45
(System No.)—9312-12 (System No.)—9324-12 (System No.)—9336-12	12 12 12	22 22 22	12 24 36	21 33 45	(System No.)—9312-30 (System No.)—9324-30 (System No.)—9336-30	30 30 30	58 58 58	12 24 36	21 33 45

Plated Steel Hooks to be purchased separately. Catalog No. 1841-1.

Table 35—BLIND END—Basket, Ladder and Rigidrack (Inches)

CATALOG NO. Prefix Index	WIDTH	USE WITH	HARDWARE
(System No.)—0402-06	6	For all Basket, Ladder, and Rigidrack Systems	Plated Bolts or Drive Rivets Furnished
(System No.)—0402-09	9		
(System No.)—0402-12	12		
(System No.)—0402-18	18		
(System No.)—0402-24	24		
(System No.)—0402-30	30	Rigidrack only	Plated Bolts

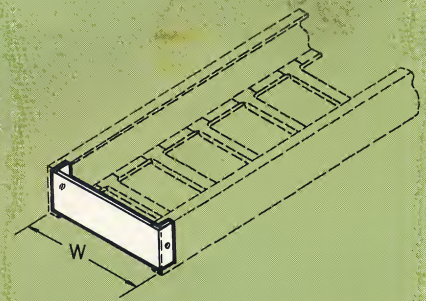


Table 36—BASKET & LADDER—TROUGH-TO-BOX CONNECTOR (Inches)

CATALOG NO. Prefix Index	W	A	B	C	D	E	BOTTOM SLOTS
(System No.)—0403-06	6	5¼	9⅝	1½			2
(System No.)—0403-09	9	5¼	12⅝	3¼			3
(System No.)—0403-12	12	5¼	15⅝	4⅝			3
(System No.)—0403-18	18	5¼	21⅝	2¾	7¾		4
(System No.)—0403-24	24	5¼	27⅝	2	6	10	6

Plated bolts or drive rivets for connection to Basket are furnished.

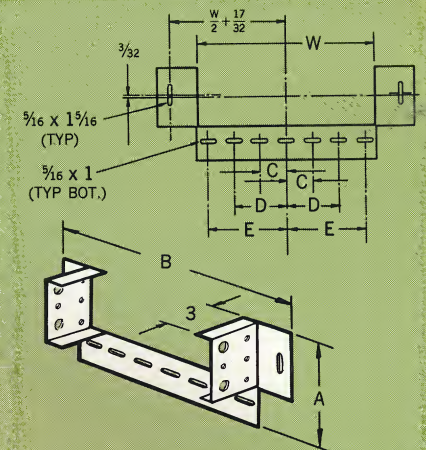


Table 37—RIGIDRACK—TROUGH-TO-BOX CONNECTOR (Inches)

CATALOG NO. Prefix Index	W	A	B	C	D	E	NUMBER SLOTS
(System No.)—0403-06	6	8½	10⅞	3¾	2		4
(System No.)—0403-09	9	8½	13⅞	3¾	2½		4
(System No.)—0403-12	12	8½	16⅞	3¾	4		6
(System No.)—0403-18	18	8½	22⅞	3¾	7		6
(System No.)—0403-24	24	8½	28⅞	3¾	3½	10	8
(System No.)—0403-30	30	8½	34⅞	3¾	4½	13	8

Plated bolts and nuts for connection to Rigidrack are furnished.

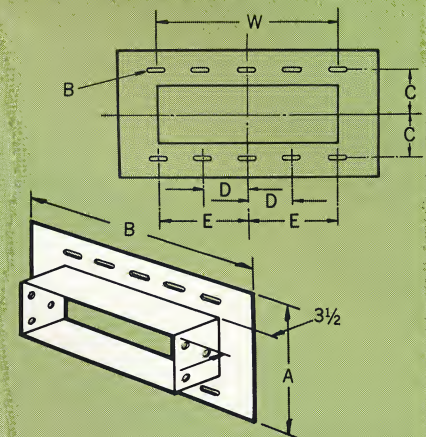
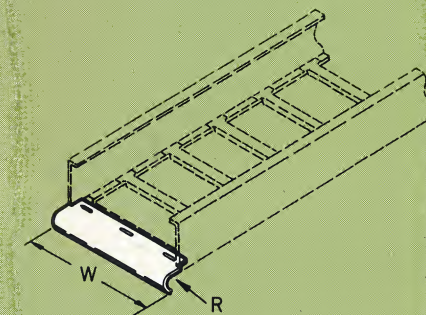


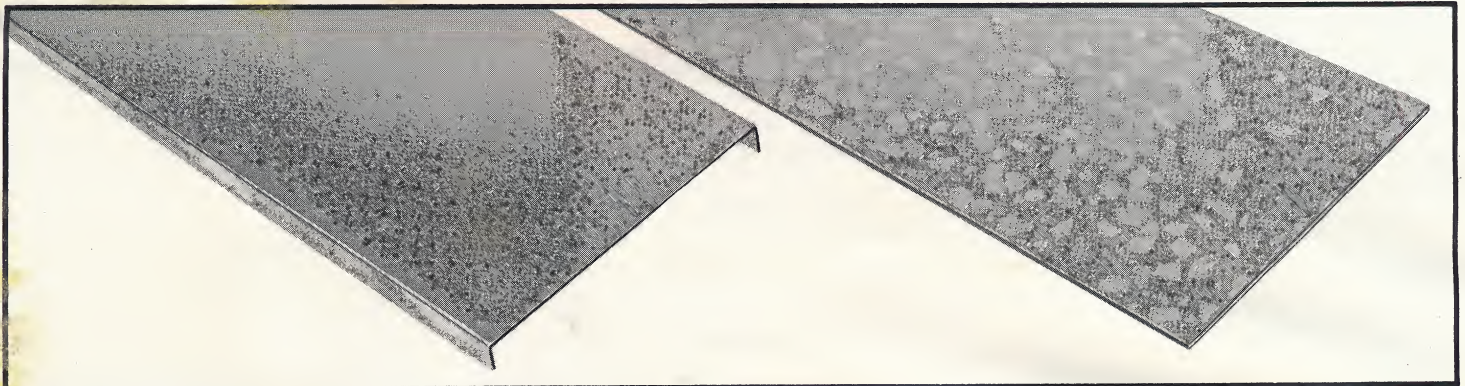
Table 38—DROPOUT—Basket, Ladder and Rigidrack (Inches)

CATALOG NO. Prefix Index	W	R	CATALOG NO. Prefix Index	W	R
(System No.)—0253-06	6	¾	(System No.)—0254-06	6	5
(System No.)—0253-09	9	¾	(System No.)—0254-09	9	5
(System No.)—0253-12	12	¾	(System No.)—0254-12	12	5
(System No.)—0253-18	18	¾	(System No.)—0254-18	18	5
(System No.)—0253-24	24	¾	(System No.)—0254-24	24	5
(System No.)—0253-30	30	¾	(System No.)—0254-30	30	5

Dropouts 0253-30 and 0254-30 made for Rigidrack only.
Plated carriage bolt, nut, and washer included.



P-W Cable Tray Accessories



The next few pages show various accessories to complete your P-W cable or tubing tray system. The metal is as that of the tray system indicated—except as noted below or in the tables. The steel finishes vary according to usage and are explained below.

P-W TRAY COVERS. Recommended where there is a possibility of damage to tray contents from above. Used on vertical trays for containment of cables or tubes and for protection from personnel. Also used on exterior installations to shade tray contents from elements. **Two types are available:** flat, and flanged—both of pre-galvanized steel. Flat covers, more economical, are satisfactory for most indoor installations. Flanged covers, on outdoor installations, prevent wind or liquids from leaking upon the tray contents. Rigidrack covers are flanged only. Where Cable Ladders and Rigidrack are to be installed outdoors subject to high winds, contact P-W engineers for recommendations on cover connectors.

Covers for fittings have the same configurations as the main cover sections.

To specify: Select the cover system Prefix Number (from table, this page) and use it before the Index Number for the straight section or fitting on which the cover is to be used (see pages 11 to 18).

Example: A flanged cover for an aluminum horizontal elbow, 12-inch radius, 18-inch width—use this catalog number: **5000-9012-18**. Be careful not to mix cover System Numbers from one system to another.

P-W COVER CONNECTORS. Offered in two types, for Versatile Cable Baskets and Cable Ladders, affording ample hold-down for most horizontal and vertical situations. Rigidrack cover connectors are made from aluminum channels, for added strength. All types allow quick removal of covers for cable inspection.

P-W HOLD-DOWN CLIPS. Light- and heavy-duty clips are of two general types. One is for use with Type A and Strut brackets (page 27) and hanger channels (page 20). The other is wider, for use with all support channels and brackets, including P-W Strut.

Light-duty clips are made of pre-galvanized steel; heavy-duty clamps are of steel hot dip galvanized after fabrication (good outdoors).

Rungs in Basket and Ladder systems extend below side rails; hence, heavy-duty clamps are used (they support the tray side rail). Where rungs and supports do not conflict, light-duty clips may be used.

In Rigidrack, square hold-down clips are suitable with all types of support structures.

CONDUIT CLAMP BRACKETS provide support for conduits from any direction to a tray system.

HANGER CHANNELS, for use with rods, are of steel hot dip galvanized after fabrication. (Hanger rod centers are given, so that inserts or beam clamps may be pre-positioned.)

P-W DIVIDER STRIPS. Dividers make it possible to keep certain cables separate from others. They must mate with the tray system; therefore they must be specified by System Number prefix as well as Divider Index Number.

Dividers for Versatile Cable Basket and Cable Ladders are shipped with a sufficient number of hold-down clamps and hardware.

The easy-to-use fastening clip is pictured.

In Rigidrack, special nuts and hardware are provided for fastening dividers in the tray. The numbers of hold-down bolts, nuts, clamps, and/or bolts and special nuts are listed.

Dividers and clips are of pre-galvanized steel; hardware is electro-galvanized.

HANGER CLAMPS for Versatile Cable Baskets and Cable Ladders are used with rods. They are of steel (HDGAF), or aluminum, as listed.

P-W CABLE BLOCKS. These blocks for the support of high-voltage cables generally vary from 1½ to 2 inches in thickness, to prevent "cold flow" of sheath. They are made of hard maple, pre-drilled, chamfered at openings, and are paraffin-dipped (¼-inch penetration) for long life and good insulation. They can be supplied as shown, or in other special configurations. (Give us full cable details and the optimum block can be selected.)

P-W CABLE CLAMPS. For securely fastening cables, see special clamps (page 22); or P-W's cable banding kit may be used (100 buckles and 100 feet of banding; shown on page 29).

P-W TUBE CLIP PLATES. A pre-galvanized steel plate with spring-bronze nickel-plated clips riveted to it. Clips may be ¼, ½, ¾, or 1 inch in size, for spacing and securing individual tubings in vertical or horizontal mounting. Field should space plates (an outgrowth of P-W's Raceway, page 30) on from 2- to 4-foot centers, depending on the size and rigidity of the tubing. Mounting hardware consists of ¼-20 bolts, nuts, and washers (the plates are pre-punched). Rungs of trays are to be field-drilled for mounting, except when slotted rungs are used. For supporting different diameter tubes in one wide tray, simply order smaller width plates and mount them side-by-side.

Table 39—COVER SYSTEM NUMBERS
Basket & Ladder

Cover System Prefix No.	Material	Cover Type
1000	Galv. Sht. Stl.	Solid Flanged
1002	Galv. Sht. Stl.	Solid Flat
5000	Aluminum	Solid Flanged
5001	Aluminum	Solid Flat

Rigidrack

Cover System Prefix No.	Rigidrack Type	Cover Type
5012	1¾" Flange	Solid Flanged Alum. Only
5022	¾" Flange	

Channel

Cover System Prefix No.	Material	Cover Type
1000	Galv. Sht. Stl.	Solid Flanged Only
5000	Aluminum	

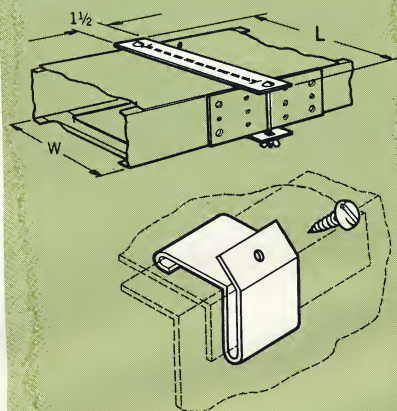


Table 40—COVER CONNECTORS—STRAP (Inches)

Basket & Ladder Alum. or Stl. HDGAF		W	Rigidrack Alum.	1 3/4 Fig.	3/4 Fig.
CATALOG NO.	L		Index	L	L
(System No. Prefix) —1400-06	7 3/8	6	(System No. Prefix) —1415-06	10 7/8	8 7/8
—1400-09	10 3/8	9	—1415-09	13 3/8	11 3/8
—1400-12	13 3/8	12	—1415-12	16 3/8	14 3/8
—1400-18	19 3/8	18	—1415-18	22 3/8	20 3/8
—1400-24	25 3/8	24	—1415-24	28 3/8	26 3/8
		30	—1415-30	34 3/8	32 3/8

Plated steel carriage bolt and wing nut included.

Table 41—COVER CONN. CLIP—Basket and Ladder

CATALOG NO.	METAL	HARDWARE
(System No.)—1410-01	Steel HDGAF	#10 x 1/2" Sheet Metal Galv. Screw included

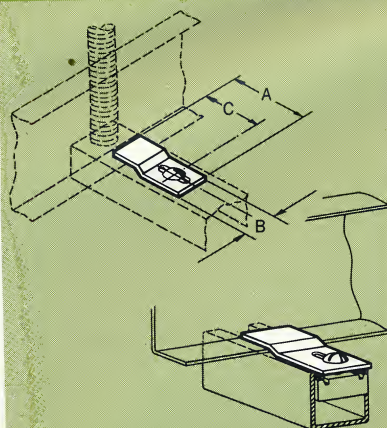
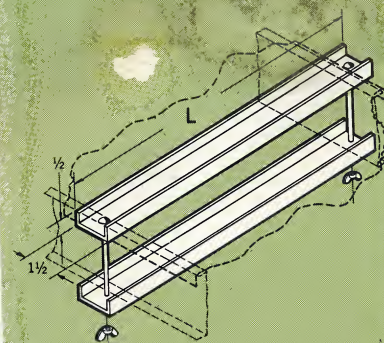


Table 42—HOLD DOWN CLIP—B. & L. (Inches)

CATALOG NO.	A	B	C	METAL
(System No.)—1811-01	2 3/4	1	1 1/8	Pre-Galvanized Steel
(System No.)—1811-03	2 3/4	1 1/2	1 1/8	Pre-Galvanized Steel

Plated carriage or machine bolts with nut or spring nut included.

Table 43—HOLD DOWN CLAMP—Rigidrack (Inches)

CATALOG NO.	A	D	METAL
9999-1823-01	1 1/2	3/16	Steel HDGAF
9998-1823-01	1 1/2	3/16	Aluminum

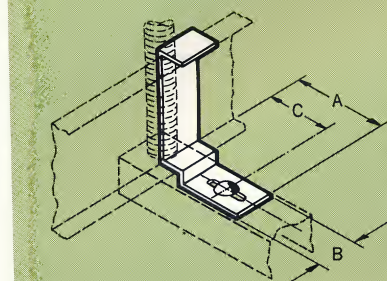
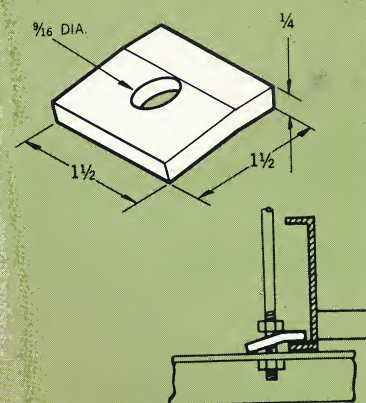


Table 44 HEAVY DUTY HOLD DOWN CLAMP (Inches)
Basket & Ladder—Aluminum or Steel HDGAF

CATALOG NO.	A	B	C
(System No.)—1804-01	2 1/2	1 1/2	1 1/8
(System No.)—1804-03	2 1/2	1 1/2	1 1/8

Table 45—CONDUIT CLAMP BRACKET (Inches)
All Systems—Stainless Steel

CATALOG NO.	A	B	C	D
9996-1818-01	2 1/4	1 1/2	3/4	1 1/2

Plated carriage bolt, nut, and washer included.

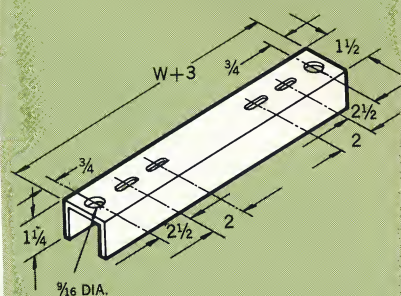
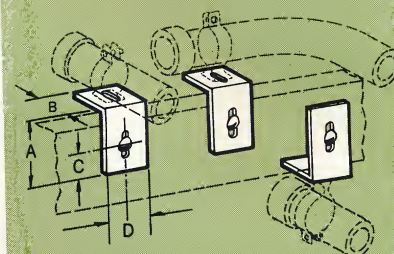
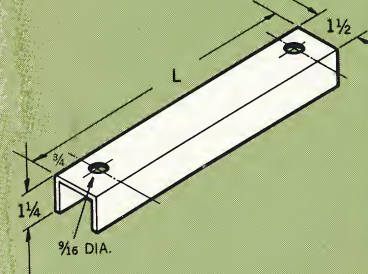


Table 46—HANGER CHANNEL—Stl. HDGAF (In.)

Basket & Ladders		Rigidrack 1 3/4" Fig.	Rigidrack 3/4" Fig.
Catalog No.	W	Catalog No.	L
1052-0303-06	6	1052-0332-06	11 1/2
1052-0303-09	9	1052-0332-09	14 1/2
1052-0303-12	12	1052-0332-12	17 1/2
1052-0303-18	18	1052-0332-18	23 1/2
1052-0303-24	24	1052-0332-24	29 1/2
	30	1052-0332-30	35 1/2



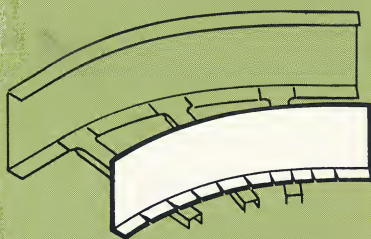
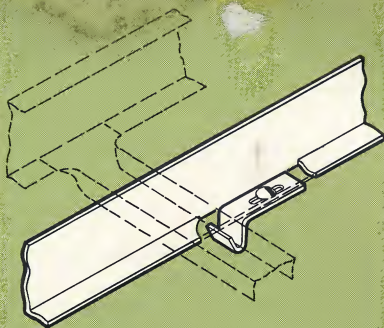


Table 47—DIVIDER STRIPS
Basket, Ladder & Rigidrack

Catalog No. Index	Inch R	TYPE OF DIVIDER	Hold Down Clips
—0012-99		Straight Section—12'-0" long	4
—0606-99		Flexible Straight Section 6'-0" long for use with all horizontal fittings of any radius (els, tees, etc.)	3
—9112-99 —9124-99 —9136-99	12 24 36	90° Inside Vertical Elbow	2 2 2
—9212-99 —9224-99 —9236-99	12 24 36	90° Outside Vertical Elbow	2 2 2
—6112-99 —6124-99 —6136-99	12 24 36	60° Inside Vertical Elbow	2 2 2
—6212-99 —6224-99 —6236-99	12 24 36	60° Outside Vertical Elbow	2 2 2
—4612-99 —4624-99 —4636-99	12 24 36	45° Inside Vertical Elbow	2 2 2
—4712-99 —4724-99 —4736-99	12 24 36	45° Outside Vertical Elbow	2 2 2
—3112-99 —3124-99 —3136-99	12 24 36	30° Inside Vertical Elbow	2 2 2
—3212-99 —3224-99 —3236-99	12 24 36	30° Outside Vertical Elbow	2 2 2

(Add System Number*Prefix)

Dividers with 36" radius for Rigidrack only.
Clips for Basket and Ladder systems, and special nut for Rigidrack are included.
Divider Strips for steel systems are pre-galvanized; aluminum for Rigidrack.

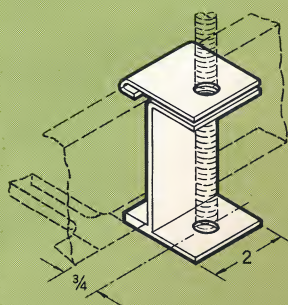
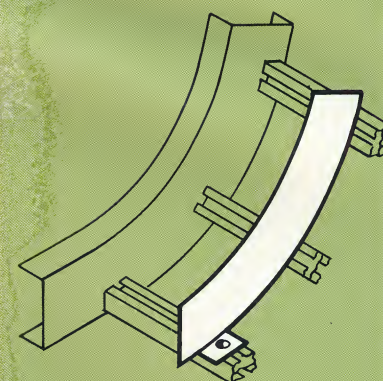
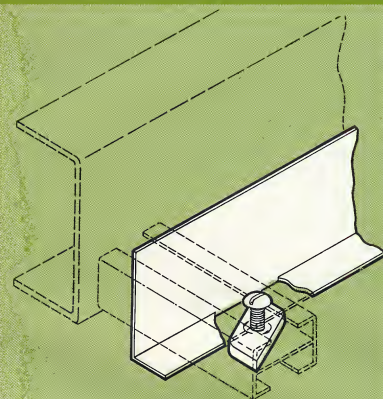


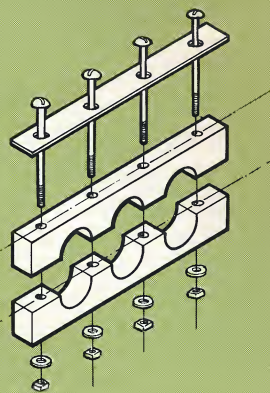
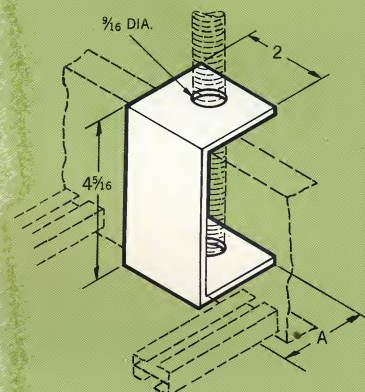
Table 48—OVERHEAD HANGER CLAMP
Basket and Ladders

CATALOG NO. Prefix Index	METAL
(System No.)—1805-01	Steel, HDGAF

If upper part is desired, order (System No.)—1806-01.

Table 49—SINGLE OVERHEAD HANGER CLAMP
RIGIDRACK

CATALOG NO. Prefix Index	DIMENSION A 1 3/4" Flg. 3/4" Flg.	METAL
(System No.)—1820-01 (System No.)—1836-01	2 7/8 —	Stl. HDGAF Aluminum
(System No.)—1820-02 (System No.)—1836-02	— 1 7/8	Stl. HDGAF Aluminum

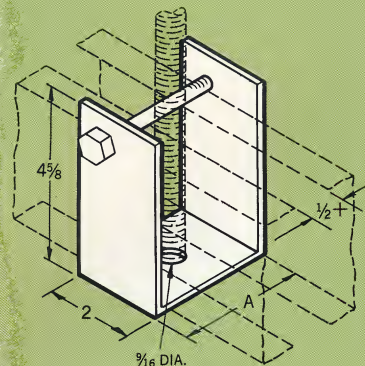


CABLE BLOCKS—ALL SYSTEMS

Furnished to your specifications. Consult factory with quantities and dimensions of cables.

Table 50—DOUBLE OVERHEAD HANGER CLAMP
RIGIDRACK

CATALOG NO. Prefix Index	DIMENSION A 1 3/4" Flg. 3/4" Flg.	METAL
(System No.)—1831-01 (System No.)—1839-01	4 1/8 —	Stl. HDGAF Aluminum
(System No.)—1831-02 (System No.)—1839-02	— 2 1/8	Stl. HDGAF Aluminum



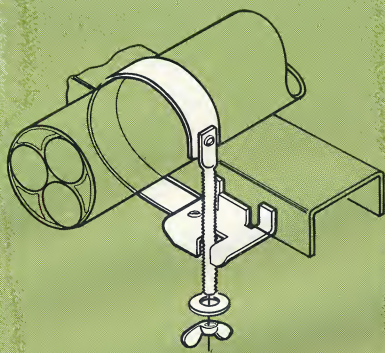


Table 51—CABLE CLAMP—Basket and Solid-Rung Ladder (Inches)

CATALOG NO.			SIZE O.D.	CATALOG NO.			SIZE O.D.
ALUMINUM	GALV. STEEL	STAINLESS		ALUMINUM	GALV. STEEL	STAINLESS	
9998-1901-01	9999-1901-01	9996-1901-01	¾"	9998-1901-08	9999-1901-08	9996-1901-08	2½"
9998-1901-02	9999-1901-02	9996-1901-02	1"	9998-1901-09	9999-1901-09	9996-1901-09	2¾"
9998-1901-03	9999-1901-03	9996-1901-03	1¼"	9998-1901-10	9999-1901-10	9996-1901-10	3"
9998-1901-04	9999-1901-04	9996-1901-04	1½"	9998-1901-11	9999-1901-11	9996-1901-11	3¼"
9998-1901-05	9999-1901-05	9996-1901-05	1¾"	9998-1901-12	9999-1901-12	9996-1901-12	3½"
9998-1901-06	9999-1901-06	9996-1901-06	2"	9998-1901-13	9999-1901-13	9996-1901-13	3¾"
9998-1901-07	9999-1901-07	9996-1901-07	2¼"	9998-1901-14	9999-1901-14	9996-1901-14	4"

Plated wing nut included.

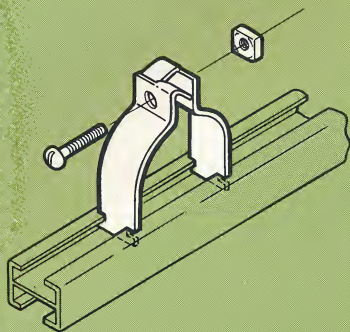


Table 52—CABLE CLAMP—RIGIDRACK (and Slotted-Rung Ladder) (Inches)

CATALOG NO.		SIZE O.D.	CATALOG NO.		SIZE O.D.	CATALOG NO.		SIZE O.D.
ALUMINUM	STAINLESS		ALUMINUM	STAINLESS		ALUMINUM	STAINLESS	
9998-1904-03	9996-1904-03	¾"	9998-1904-13	9996-1904-13	1½"	9998-1904-23	9996-1904-23	2½"
9998-1904-04	9996-1904-04	½"	9998-1904-14	9996-1904-14	1¼"	9998-1904-24	9996-1904-24	3"
9998-1904-05	9996-1904-05	¾"	9998-1904-15	9996-1904-15	1"	9998-1904-25	9996-1904-25	3½"
9998-1904-06	9996-1904-06	¾"	9998-1904-16	9996-1904-16	2"	9998-1904-26	9996-1904-26	3¾"
9998-1904-07	9996-1904-07	¾"	9998-1904-17	9996-1904-17	2¼"	9998-1904-27	9996-1904-27	3½"
9998-1904-08	9996-1904-08	1"	9998-1904-18	9996-1904-18	2¼"	9998-1904-28	9996-1904-28	3½"
9998-1904-09	9996-1904-09	1½"	9998-1904-19	9996-1904-19	2¾"	9998-1904-29	9996-1904-29	3¾"
9998-1904-10	9996-1904-10	1¼"	9998-1904-20	9996-1904-20	2½"	9998-1904-30	9996-1904-30	3¾"
9998-1904-11	9996-1904-11	1¾"	9998-1904-21	9996-1904-21	2½"	9998-1904-31	9996-1904-31	3¾"
9998-1904-12	9996-1904-12	1½"	9998-1904-22	9996-1904-22	2¾"	9998-1904-32	9996-1904-32	4"

Plated bolt and nut are included.

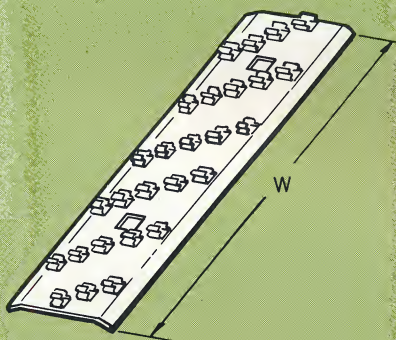


Table 53—TUBE CLIP PLATES—Basket, Ladder and Rigidrack (Inches)
Pre-galvanized Sheet w/Nickel Plated Clips

Catalog No.	O.D. Tube	Max. No. Tube Runs	Max. W	Catalog No.	O.D. Tube	Max. No. Tube Runs	Max. W	Catalog No.	O.D. Tube	Max. No. Tube Runs	Max. W
2521-1807-06	¾"	17	6	2523-1807-12	¾"	26	12	2522-1807-24	½"	53	24
2521-1807-09	¾"	27	9	2523-1807-18	¾"	40	18	2522-1807-30	½"	67	30
2521-1807-12	¾"	37	12	2523-1807-24	¾"	53	24	2524-1807-06	½"	8	6
2521-1807-18	¾"	56	18	2523-1807-30	¾"	67	30	2524-1807-09	½"	13	9
2521-1807-24	¾"	75	24	2522-1807-06	½"	13	6	2524-1807-12	½"	18	12
2521-1807-30	¾"	94	30	2522-1807-09	½"	19	9	2524-1807-18	½"	28	18
2523-1807-06	¾"	13	6	2522-1807-12	½"	26	12	2524-1807-24	½"	37	24
2523-1807-09	¾"	19	9	2522-1807-18	½"	40	18	2524-1807-30	½"	47	30

Plated carriage bolts, nuts, and washers included to mount to tray.

P-W Rollers and Pulleys

P-W Rollers are quickly and easily installed. The bottom of the side plates (on Basket, Ladder, and Rigidrack systems) fits over the channel side of the tray sections. The roller bar (on which the discs rotate) fits between the side plates into square holes in the plates. Two rods hold the roller in position and secure the side plates to the channel sides of the tray. The rods may be quickly attached or removed by means of wing nuts.

The $\frac{1}{8}$ -inch-thick roller discs are made of aluminum. Discs are employed so that one cable may be pulled while adjacent cables remain stationary. Since the roller assembly is attached to the channel sides of the tray, and the roller

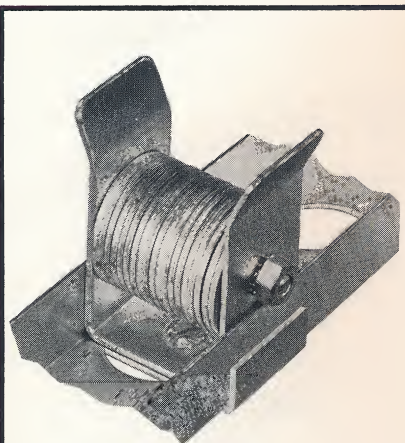
is above the tray area, cables already installed need not be disturbed when installing a new layer of cables.

To remove the roller after cables have been pulled, the roller rods are easily detached and the bar and discs can be dropped between rungs of the Basket, Ladder, or Rigidrack tray—and the cables that rested on the rollers will settle to the bottom of the tray.

To remove a roller from solid bottom trays—or where there is no access to the bottom from below—the cables may be blocked with wood until the rods and rollers are removed. Removal of the block then permits the cables to rest on the tray bottom.

Table 54—ROLLERS
Basket, Ladder, Rigidrack and Channel

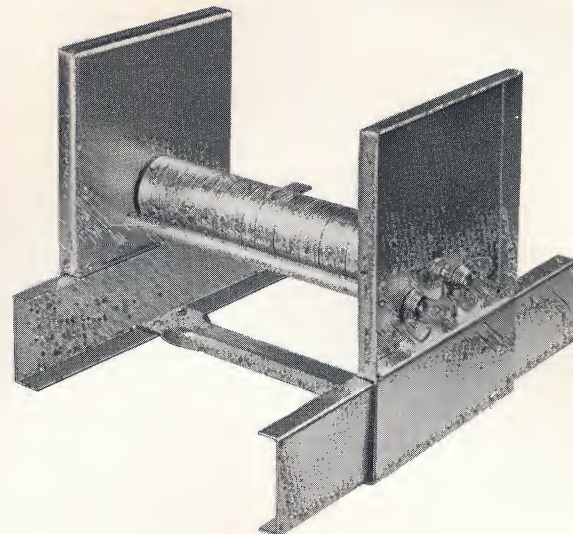
CATALOG NO.	W	FOR USE WITH	
—0901-04	4"	Channel (Below)	
—0901-06	6"	Basket and Ladder (Top)	Rigid-rack Systems (Bottom)
—0901-09	9"		
—0901-12	12"		
—0901-18	18"		
—0901-24	24"		
—0901-30	30"		



Roller for 4-inch Channels

For purchase only

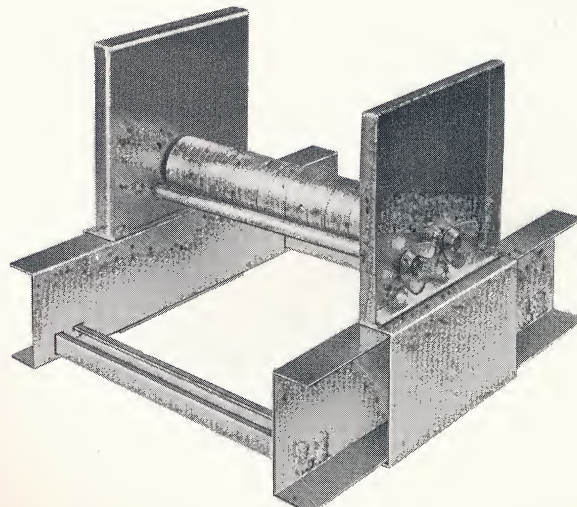
Total height, approximately $4\frac{3}{8}$ inches; made of pre-galvanized steel with discs of aluminum. This roller fits inside the channel and is supplied with a bolt that goes through one of the holes provided in the bottom of the channel for such attachment.



P-W Rollers for Cable Basket, Cable Ladder, and Rigidrack Systems

May be rented or purchased

The overall height of the side plates is 10 $\frac{1}{2}$ inches for Basket and Ladders use; and 11 inches for Rigidrack. All widths are available to match the available widths of the respective support systems. Structural parts are of pre-galvanized steel; the roller discs are of aluminum. See tables for details, and read carefully the instructions for installing Rollers.



P-W Rollers and Pulleys

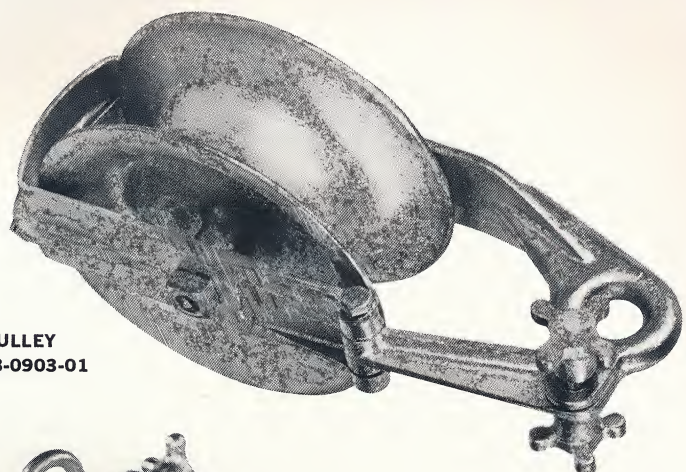
P-W Pulleys can be secured to a wall or other structural member by means of a ring welded to the crossbar of the Triple-Wheel Pulley, or a hole in the cast frame of the Single-Wheel Pulley. When cable is in place the pulley is removed by unscrewing the top shackle of the Triple-Wheel, or by opening the hinged frame rib of the Single-Wheel Pulley.

Pulling the cable. There are many different types of cable; and it is customary for each cable manufacturer to suggest the best method for pulling that particular type.

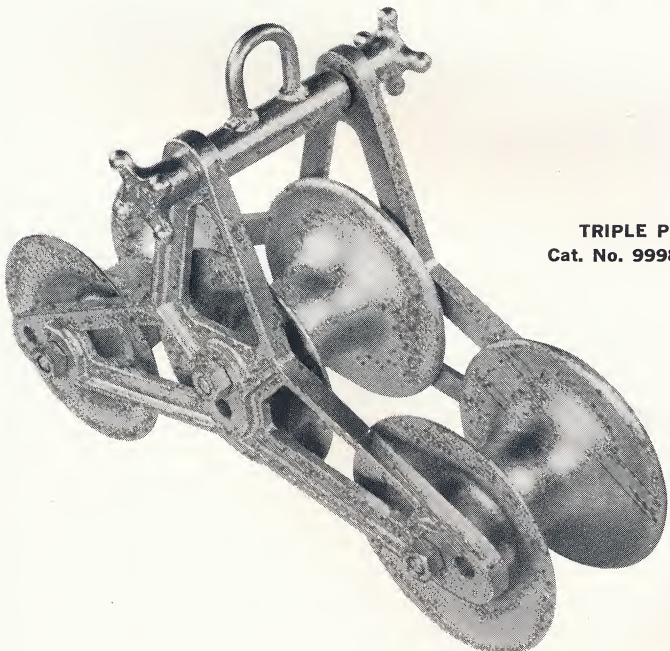
Usually, pulling eyes or cable grips are used. Basically, the manufacturers recommend that armored or leaded cables (and non-metallic sheathed cables with an outer diameter larger than 2 inches) be pulled by both the conductors and the armor sheath. Short lengths of armored or leaded cables (and small-diameter non-metallic sheathed cables) may be pulled with

a cable "basket" grip only—providing the strain does not elongate the armor or sheath beyond the conductors. As to speed, long runs of cable with numerous bends can be installed at a rate of about 20 to 25 feet per minute, keeping the cable taut with a brake.

The number of rollers and pulleys required depends on the weight of the cables. With cables of 8 or more pounds per foot, it is recommended that rollers be spaced on 10-foot centers; with cables weighing 2 pounds per foot or less, rollers may be spaced on 16-foot centers. Between these two limits, other spacings may be adjusted in proportion to the cable weights. When dissimilar sizes are to be installed in the same tray, roller spacing should always be commensurate with the heaviest cable. A good guide is to use rollers near each support assembly; such spacing should suffice for any weight cables to be pulled.



SINGLE PULLEY
Cat. No. 9998-0903-01



TRIPLE PULLEY
Cat. No. 9998-0902-01

P-W Single-Wheel Pulley

May be rented or purchased

Made of sturdy cast aluminum, with a sheave 9½-inches in diameter and Oilite bronze bushings. Total height, 19 inches. This pulley is for any bend of 45 degrees or less; and it allows for maximum 4"-diameter cable to be loaded into or removed from the system without complete dismantling.

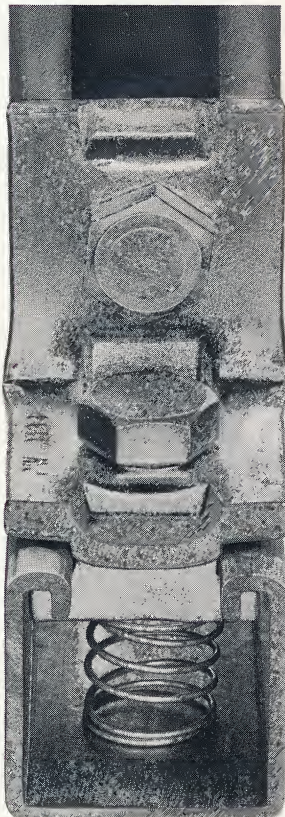
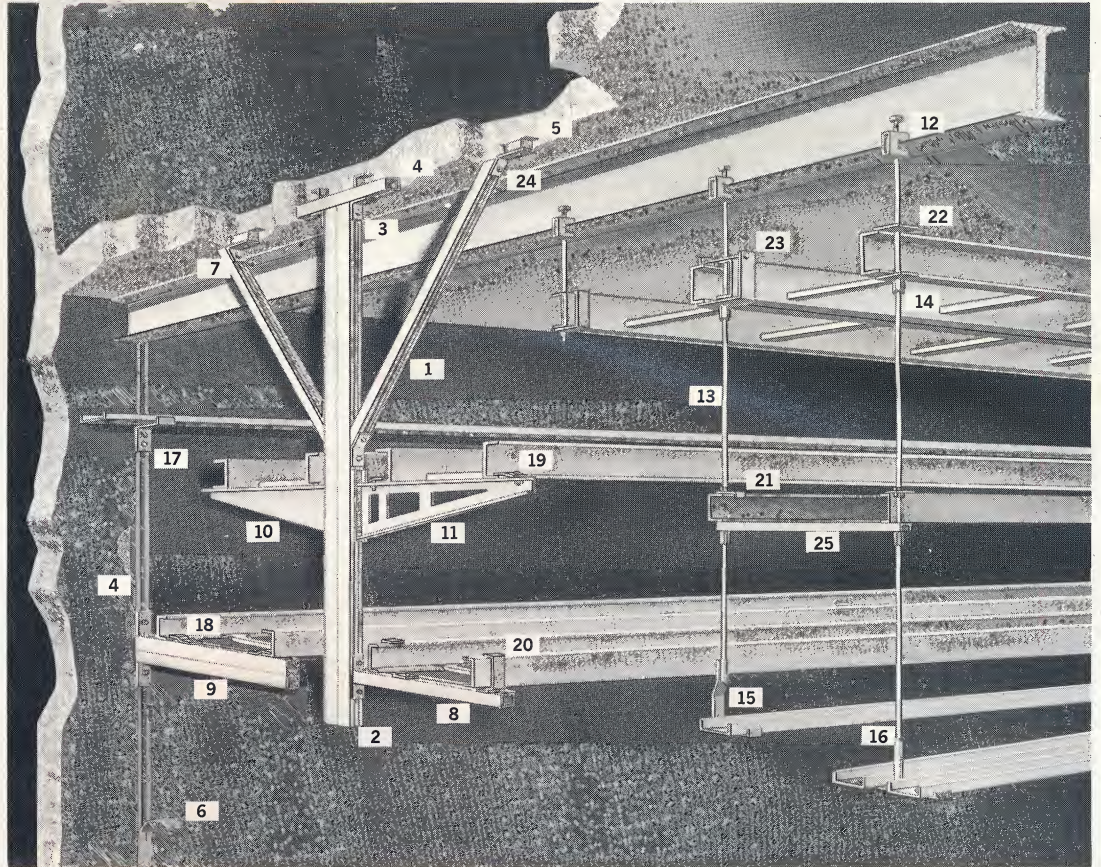
P-W Triple-Wheel Pulley

May be rented or purchased

Made of sturdy cast aluminum. The sheaves are 7-inches in diameter; roll on Oilite bronze bushings; and accommodate cables up to 4 inches in diameter. This unit can be used in pulling cables around horizontal or vertical bends larger than 45 degrees. A letter code on the frame indicates how sheaves should be inserted and adjusted for 15-, 18-, 24-, or 36-inch radius, to meet bending specifications for the various types of cable. Over-all dimensions are approximately 16½ inches high and 22 inches long (varying slightly with radius).

P-W Strut and Accessories

No.	Part	Page
1	P-W Strut, Single Channel	26
2	Welded Double Channel	26
3	2-Hole Corner Angle	26
4	Concrete Inserts	26
5	Concrete Spot Inserts	26
6	Closure Tape Strip	26
7	2-Hole Closed Angles	26
8	Single Strut Bracket	27
9	Double Strut Bracket	27
10	Tray Bracket	27
11	Type A Bracket	27
12	Beam Clamp	27
13	Hanger Rod	27
14	Rod Coupling	27
15	Single Overhead Hanger	29
16	Double Overhead	29
17	Wall Bracket	29
18	Hold Down Clip	20
19	Hold Down Clamp	20
20	Heavy duty Clamp	20
21	Overhead Hanger, Top Part	21
22	Overhead Hanger Clamps	21
23	Double Hanger Clamps	21
24	2-Hole Open Angle	26



P-W Strut is the newest and most versatile addition to the P-W family of Cable and Tubing Supports. Its basic principle is the use of continuously slotted channels and ingenious spring-nut fasteners. Various specially designed clips, clamps, inserts, and brackets combine to make P-W Strut the simplest, sturdiest, and most economical support system for many industrial uses. On the following pages are shown those items of P-W Strut and accessories for use with cable trays.

The main element is the 1½-inch square, 12-gauge box channel (14-gauge channels are also available) or the 12-gauge double channel, welded back-to-back. The channels are made of pre-galvanized steel, and are available in 10-foot and 20-foot standard lengths.

The many associated hardware items, such as angles, square nuts, spring nuts, corner connections, angle connections, hex couplings and beam clamps, are electro-galvanized.

The basic corner connection angle and the angle clips are made of quarter-inch-thick steel. The brackets are made of 11-gauge steel; the back plates are heavier. All brackets are hot dip galvanized after fabrication and welding. Allowable loadings for the brackets and beam clamps are given in the tables.

The grooved spring nut is used for all connections between the various sections of P-W Strut. The continuous slot in the channel permits the nut to be inserted regardless of the channel position. The nut remains in place until used; and its position is easily adjusted by sliding it to wherever desired.

The spring nut is made of steel, but is cyanide-flash hardened, making it even stronger and harder than the steel in the channel.

The small teeth in the nut bite the channel, become permanently seated, and will not slip under the recommended loadings.

Continuously slotted concrete and spot inserts are available. The lengths most commonly used in tray supports are shown. For other lengths, consult the factory.

Tape for covering the slot temporarily while pouring is shipped with all inserts, for field application. Additional tape may be ordered.

P-W Strut fits together much like an erector set. Its versatility provides the utmost flexibility in meeting your support needs.

In ordering P-W Strut items for tray supports, be sure to specify the proper holdown clamps. (Miscellaneous hardware items are listed on the bottom of page 26, along with their appropriate Catalog Numbers.)

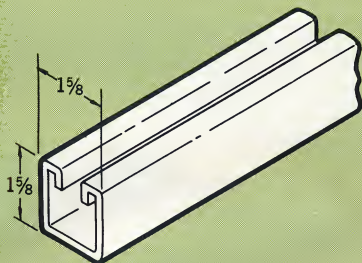


Table 55—STRUT—1 7/8" SQUARE

CATALOG NO.	LENGTH	GAGE
PW—1210-1	10'-0"	12
PW—1210-2	20'-0"	12
PW—1410-1	10'-0"	14
PW—1410-2	20'-0"	14

Table 56—DOUBLE STRUT

CATALOG NO.	LENGTH	GAGE
APW—1220-1	10'-0"	12
APW—1220-2	20'-0"	12

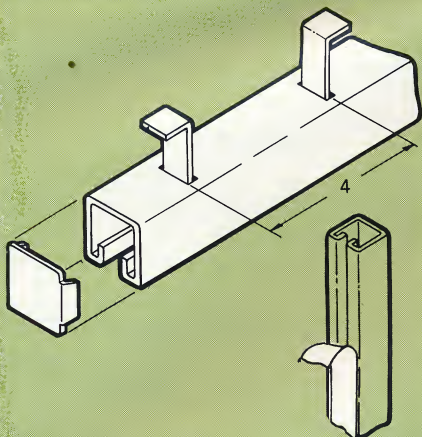
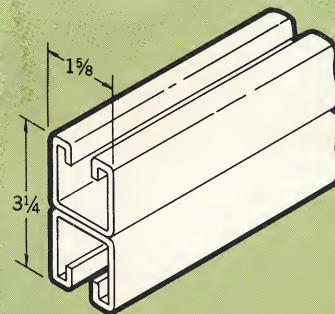


Table 57—CONCRETE INSERTS

CATALOG NO.	LGTH.	CATALOG NO.	LGTH.
APW—1299-5	1'-0"	APW—1299-16	8'-0"
APW—1299-8	2'-0"	APW—1299-18	10'-0"
APW—1299-10	3'-0"	APW—1299-23	20'-0"
APW—1299-14	6'-0"		

CLOSURE TAPE—Catalog No. PW—0407-1. For field application.

END CAPS—Catalog No. PW—0234-1. Two end caps included with insert. Be sure to order extra end caps if field-cutting inserts.

CONCRETE SPOT INSERT #APW-0323-1

Design Load = 800 lbs.

SQUARE NUTS (1/2"-13) — PW-0439-5
RECTANGULAR NUTS — PW-0440-5

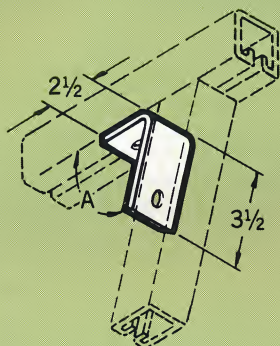
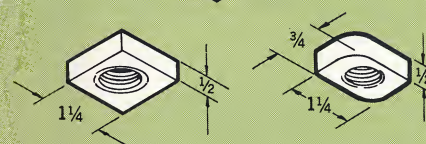
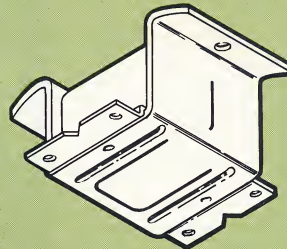
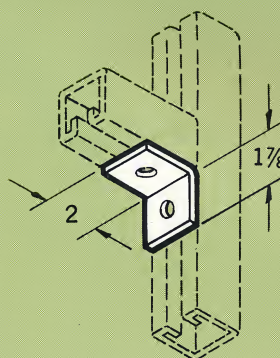
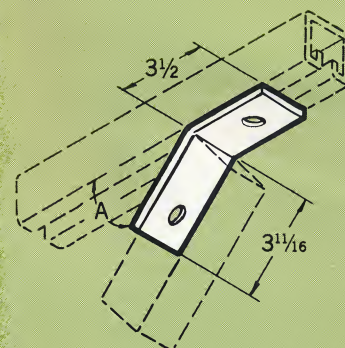


Table 58—2-HOLE CLOSED ANGLE

CATALOG NO.	ANGLE
PW—0129-1	30°
PW—0129-3	45°
PW—0129-5	60°

Table 59—2-HOLE OPEN ANGLE

CATALOG NO.	ANGLE
PW—0127-4	30°
PW—0127-7	45°
PW—0127-9	60°

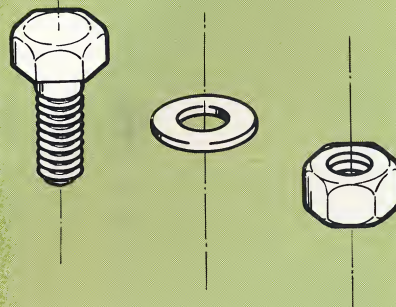


2-HOLE CORNER ANGLE
CATALOG NO. PW—0132-1

Table 60—MISCELLANEOUS HARDWARE

CATALOG NO.	DESCRIPTION
DS—8515-9	1/2"-13 Hex Hd. Bolt x 1" Long, Plated Steel
DS—8570-1	1/2"-13 Hex Nut, Plated Steel
DS—8550-1	1/2"-13 Square Nut, Plated Steel
DS—8595-1	1/2" Flat Washer, Plated Steel
DS—8515-10	1/2"-13 Hex Hd. Bolt x 1 1/4" Long, Plated Stl.
DS—8540-2	1/4"-20 Mach. Scr. x 3/4", Plated Steel
DS—8540-3	1/4"-20 Mach. Scr. x 5/16", Plated Steel*
APW—0102-3	1/4"-20 Spring Nut, Plated Steel

*Use DS—8540-3 w/Cat. No. 9999-1832-01 special nut when attaching items to Rigidrack rung slot.



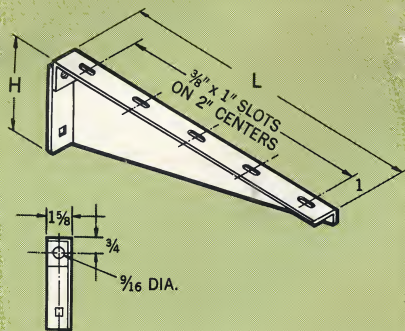


Table 61—TRAY BRACKET—HDGAF

CATALOG NO.	L	H	HAND	Dsgn Load Uniform
1051-0315-07	7"	3 3/4"	LF	300 #
1051-0316-07	7"	3 3/4"	RT	300 #
1051-0315-10	10"	3 3/4"	LF	300 #
1051-0316-10	10"	3 3/4"	RT	300 #
1051-0315-13	13"	4"	LF	300 #
1051-0316-13	13"	4"	RT	300 #
1051-0315-19	19"	5"	LF	300 #
1051-0316-19	19"	5"	RT	300 #
1051-0315-25	25"	7 1/4"	LF	300 #
1051-0316-25	25"	7 1/4"	RT	300 #

Left hand bracket pictured.

C-CLAMP BEAM HANGER #APW—0220-2

Rod size: 1/2"-13; Design load: 750 lbs.

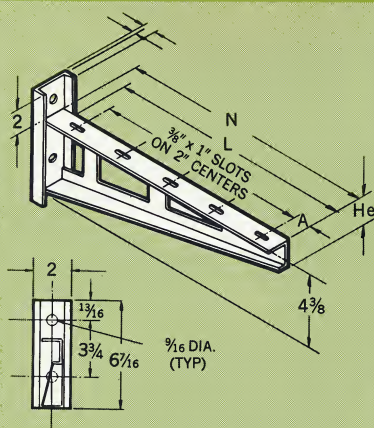
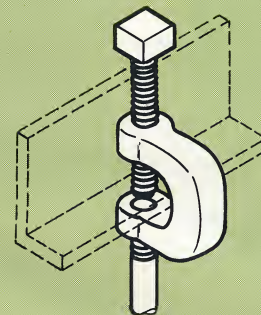


Table 62—TYPE A BRACKET—HDGAF (In.)

CATALOG NO.	L	N	A	He	Design Load Uniform
1052-0310-07	6 5/8"	7 3/4"	1 1/2"	3 1/2"	3000 #
1052-0310-10	9 5/8"	10 3/4"	1"	3 1/4"	2200 #
1052-0310-13	12 5/8"	13 3/4"	1 1/2"	2 3/8"	1700 #
1052-0310-19	18 5/8"	19 3/4"	1 1/2"	1 1/2"	1170 #
1052-0310-25	24 5/8"	25 3/4"	1 1/2"	1 1/2"	890 #

BEAM CLAMP #APW—0221-5

Rod size: 1/2"-13; Design load: 1000 lbs.

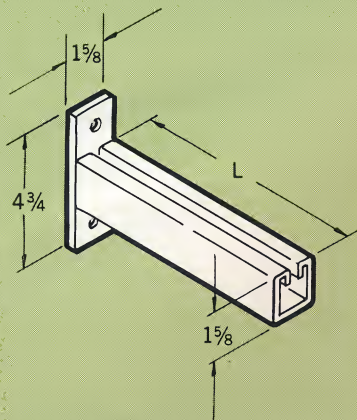
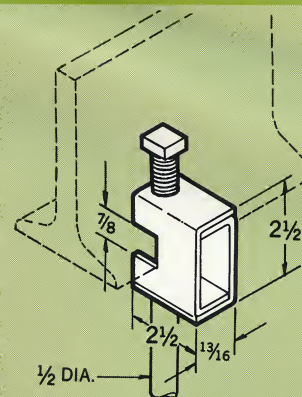


Table 63—SINGLE Strut Bracket—HDGAF

CATALOG NO.	L	SUGGESTED FOR	Dsgn Load Uniform
APW—0205-5	7"	4"C, 6"B.&L.	1000 #
APW—0205-6	10"	9"B.&L., 6"R.R.2	720 #
APW—0205-7	13"	12"B.&L., 9"R.R.2, 6"R.R.1	550 #
APW—0205-8	16"	12"R.R.2, 9"R.R.1	450 #
APW—0205-9	19"	18"B.&L., 12"R.R.1	380 #
APW—0205-10	22"	18"R.R.2	320 #
APW—0205-11	25"	24"B.&L., 18"R.R.1	290 #

Legend: C=Channel; B. & L.=Basket and Ladder; R.R.1=Rigidrack 1 3/4" Flange; R.R.2=Rigidrack 3/4" Flange.

SPRING NUT (1/2-13) #APW—0102-7

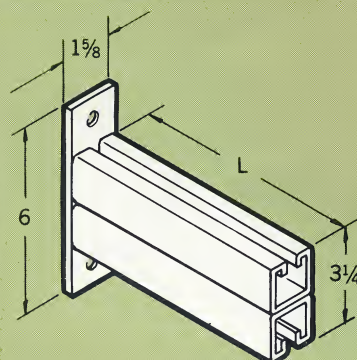
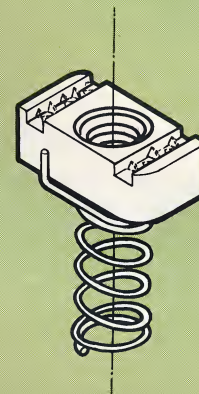


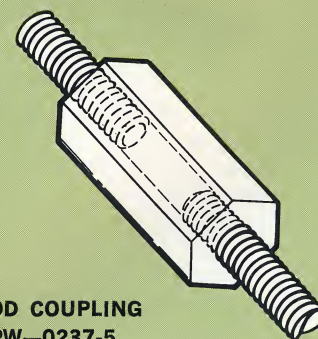
Table 64—DOUBLE Strut Bracket—HDGAF

CATALOG NO.	L	SUGGESTED FOR	Dsgn Load Uniform
APW—0206-7	7"	4"C, 6"B.&L.	3000 #
APW—0206-8	10"	9"B.&L., 6"R.R.2	2400 #
APW—0206-9	13"	12"B.&L., 9"R.R.2, 6"R.R.1	1850 #
APW—0206-10	16"	12"R.R.2, 9"R.R.1	1500 #
APW—0206-11	19"	18"B.&L., 12"R.R.1	1250 #
APW—0206-12	22"	18"R.R.2	1100 #
APW—0206-13	25"	24"B.&L., 18"R.R.1	960 #
APW—0206-5	30"	24"R.R.1, 24"R.R.2	800 #
APW—0206-6	36"	30"R.R.1, 30"R.R.2	650 #

Legend: C=Channel; B. & L.=Basket and Ladder; R.R.1=Rigidrack 1 3/4" Flange; R.R.2=Rigidrack 3/4" Flange.

THREADED HANGER ROD #PW—0256-12

Diameter: 1/2"-13; Length: 12'-0"



ROD COUPLING

#PW—0237-5

Rod size: 1/2"-13

P-W 4-inch Wide Channel System

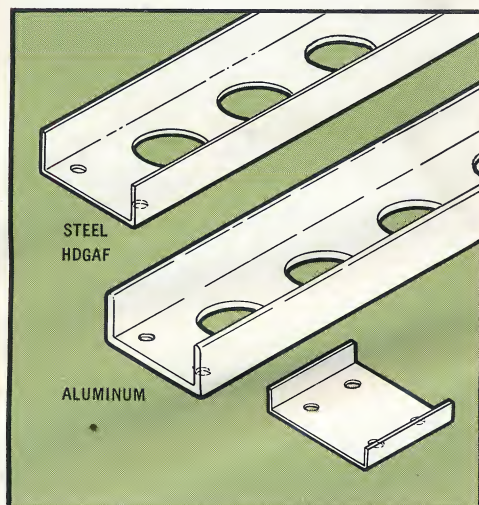


Table 65—CHANNEL STRAIGHT LENGTHS AND CONNECTORS

CATALOG NO.	DESCRIPTION
1501-0012-04	Channel 4" Wide x 1½" High x 12'-0" Long—Steel HDGAF
5501-0016-04	Channel 4" Wide x 1¾" High x 16'-0" Long—Aluminum 6063T6
1501-1301-04	Straight Connector—Steel HDGAF
5501-1301-04	Straight Connector—Aluminum

Plated bolts and nuts included.

Table 66—DEFLECTION, 4" WIDE CHANNEL

CHANNEL System No. (Prefix)	TYPE CHANNEL	SPAN LENGTH IN FEET								S Axis 2-2 In. ³
		8'-0"		10'-0"		12'-0"		14'-0"		
		Load	Defl.	Load	Defl.	Load	Defl.	Load	Defl.	
1501	4 x 1½ Stl. HDGAF	14.5	.55	7.5	.86	4.7	1.25	—	—	.084
5501	4 x 1¾ Alum. 6063T6	20.4	.94	12.6	1.46	8.6	2.1	6	2.85	.242

Load represents pounds per lineal foot; Deflection is expressed in inches.

Table 67—90° HORIZONTAL ELBOW (Inches)

CATALOG NO. Prefix	Index	R	A
(System No.)—9012-04		12	21
(System No.)—9024-04		24	33
(System No.)—9036-04		36	45

Table 68—60°, 45°, 30° HORIZONTAL ELBOW (In.)

Angle CC	CATALOG NO. Index	R	A	B	C	D
60°	(System No. Prefix) —6012-04	12	21%	14%	39%	22%
	—6024-04	24	31%	20%	60%	34%
	—6036-04	36	42%	26%	80%	46%
45°	—4512-04	12	19%	11%	36%	15%
	—4524-04	24	28%	14%	53%	22%
	—4536-04	36	36%	18%	70%	29%
30°	—3012-04	12	17%	8%	32%	8%
	—3024-04	24	23%	9%	44%	12%
	—3036-04	36	29%	11%	56%	14%

Table 69—90° VERTICAL ELBOW (Inches)

CATALOG NO.	TYPE	R	A
(System No.)—9112-04	Inside	12	17
(System No.)—9124-04	Inside	24	29
(System No.)—9136-04	Inside	36	41
(System No.)—9212-04	Outside	12	17
(System No.)—9224-04	Outside	24	29
(System No.)—9236-04	Outside	36	41

Table 70—60°, 45°, 30° VERTICAL ELBOW (Inches)

Angle CC	R	INSIDE Catalog No. Index	OUTSIDE Catalog No. Index	A	B
60°	12	(System No. Prefix) —6112-04	—6212-04	17%	10%
	24	—6124-04	—6224-04	28%	16%
	36	—6136-04	—6236-04	38%	22%
45°	12	—4612-04	—4712-04	17	7½
	24	—4624-04	—4724-04	25½	10%
	36	—4636-04	—4736-04	34	14%
30°	12	(System No. Prefix) —3112-04	—3212-04	15%	4%
	24	—3124-04	—3224-04	21%	5%
	36	—3136-04	—3236-04	27%	7%

P-W 4-inch Wide Channel is generally used for branch runs of cable and/or tubing. Allowable loading data are included in the information.

The height of the channels is 1½ inches in steel; and 1¾ inches in aluminum.

Standard length of channels is 12 feet in steel; 16 feet in aluminum. (See Table 65.)

Vertical and horizontal fittings are offered in 12-, 24-, and 36-inch radius.

Connectors are furnished with each section. Where field cuts are to be made, be sure to order sufficient extra connectors. Connections are pressure type, employing ribbed-neck, ⅜-inch diameter bolts with prevailing torque (lock type) nuts. The bolts are cyanide-hardened and retard the staining of aluminum parts. Four bolts are used for each connection.

To order spare bolts, use catalog number: DS-8530-1. For spare torque nuts, use catalog number: DS-8575-2.

Important to this system are P-W's Adjustable Fitting Connectors for odd-degree turns in horizontal and vertical directions.

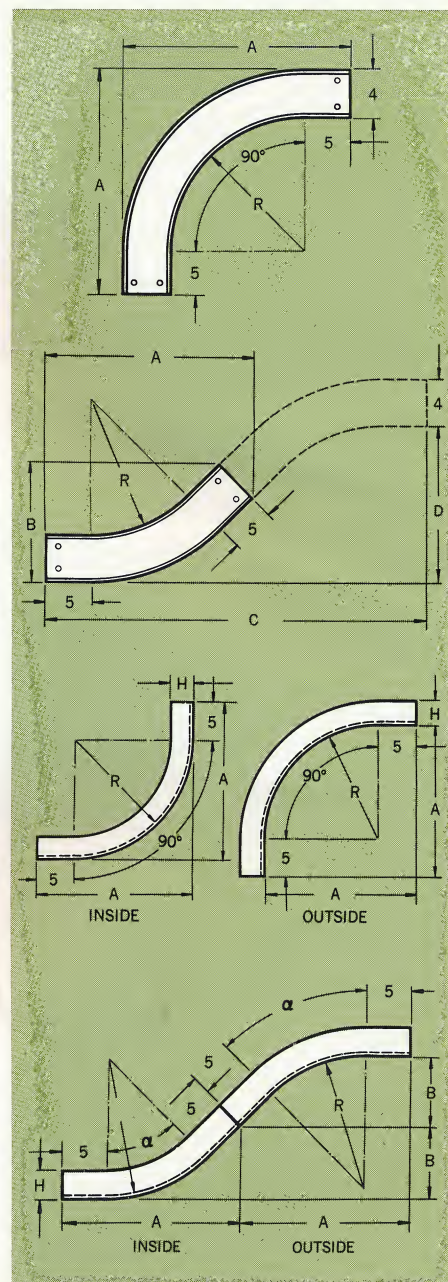
The P-W 4-inch Wide Channel System is complete with wall brackets and rod-suspended single and double hangers. Hangers are hot dip galvanized after fabrication. (For additional hanger items, see the pages on P-W Strut.)

Flanged galvanized sheet or aluminum covers are available for the system. The proper Prefix Number for the galvanized sheet covers is 1000. For aluminum covers, the Prefix Number is 5000. Be sure to add the Index Number for the item ordered (see page 28 or 29).

For example, a steel cover for a 4-inch wide, 90-degree flat elbow with a 24-inch radius would be ordered as 1000-9024-04.

Cover connectors are of the strap type and are ordered as: (System Number)—1400-04.

For containing large cables within Channels, use the P-W Banding Kit in the manner pictured. Each Banding Kit comes in a round tin with 100 feet of banding material, 100 clips, a special ratchet wrench, associated cotter pins, and simple instructions.



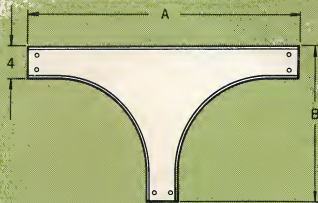


Table 71—HORIZONTAL TEE (Inches)

CATALOG NO.	R	A	B
(System No.)—2012-04	12	38	21
(System No.)—2024-04	24	62	33
(System No.)—2036-04	36	86	45

Table 72—HORIZONTAL CROSS (Inches)

CATALOG NO.	R	A
(System No.)—1012-04	12	38
(System No.)—1024-04	24	62
(System No.)—1036-04	36	86

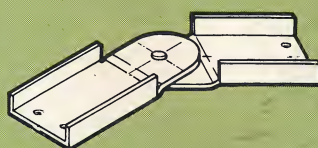
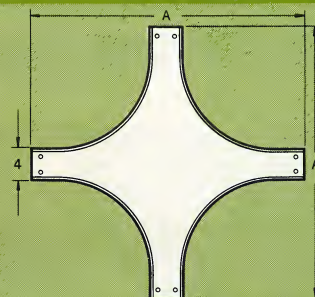


Table 73—Adj. HORIZONTAL Connector

CATALOG NO.	METAL
1501-1305-04	Stl. HDGAF
5501-1305-04	Aluminum

Plated bolts and nuts included.

Table 74—Adjustable VERTICAL Connector

CATALOG NO.	METAL
1501-1307-04	Steel HDGAF
5501-1307-04	Aluminum

Plated bolts and nuts included.

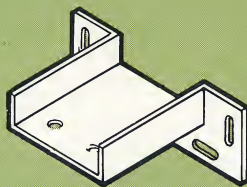
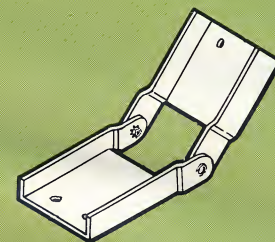


Table 75—CHANNEL-TO-BOX Connector

CATALOG NO.	METAL
1501-0403-04	Steel HDGAF
5501-0403-04	Aluminum

Plated bolts and nuts included.

Table 76—DROPOUT— $\frac{3}{4}$ " RADIUS

CATALOG NO.	METAL
1501-0253-04	Galv. Steel
5501-0253-04	Aluminum

Plated bolt and nut included.

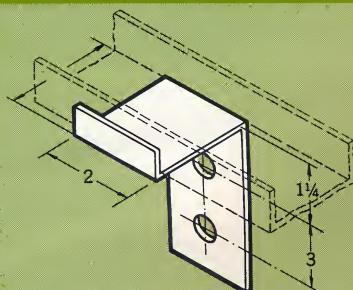
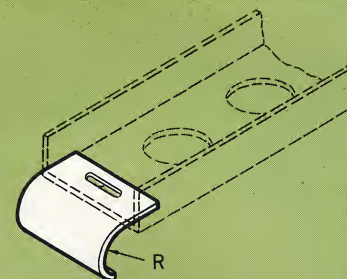


Table 77—WALL BRACKET—Stl. HDGAF

CATALOG NO.	1052-1803-04
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Table 78—TUBE CLIP PLATES—

Pre-galvanized Sheet w/Nickel Plated Clips

CATALOG NO.	O.D. Tube	Capacity
2521-1807-04	$\frac{1}{4}$ "	11
2522-1807-04	$\frac{9}{32}$ "	8
2523-1807-04	$\frac{3}{8}$ "	8
2524-1807-04	$\frac{1}{2}$ "	5

Plated carriage bolts and nuts included.

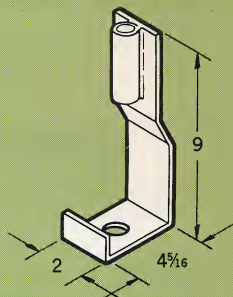
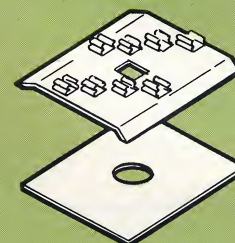


Table 79—SINGLE Overhead Hanger

CATALOG NO.	ROD DIA.	METAL
1052-0333-01	$\frac{1}{2}$ "	Stl. HDGAF
1052-0333-02	$\frac{3}{8}$ "	Stl. HDGAF

Table 80—BLIND END

CATALOG NO.	METAL
1501-0402-04	Galv. Steel
5501-0402-04	Aluminum

Plated bolt and nut included.

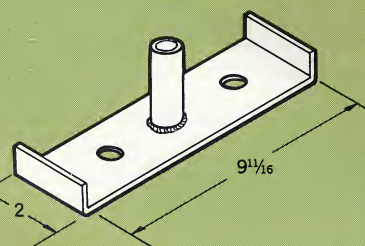
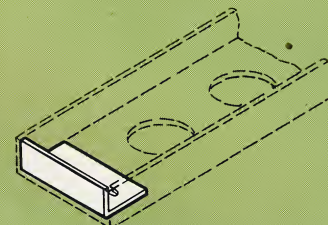


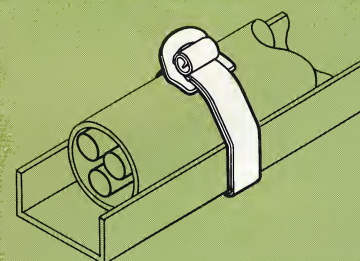
Table 81—DOUBLE Overhead Hanger

CATALOG NO.	ROD DIA.	METAL
1052-0334-01	$\frac{1}{2}$ "	Stl. HDGAF
1052-0334-02	$\frac{3}{8}$ "	Stl. HDGAF

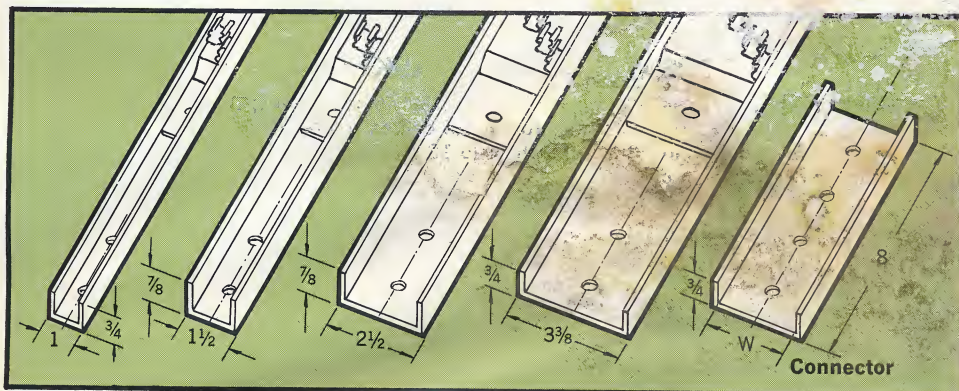
Table 82—BANDING KIT

CATALOG NO.	Band Mat'l
9999-0904-01	Galv. Steel
9996-0904-01	Stainless

Contains 100 clips and 100 feet of band. Special ratchet and pins included.



P-W Tubing Raceway



P-W Raceway is a system of small channel sections for branch runs of tubes of $\frac{1}{4}$ -, $\frac{3}{8}$ -, or $\frac{1}{2}$ -inch outer diameter.

Raceway sections are 16-feet in length and are made of pre-galvanized steel of 16-gauge thickness. Straight connections are also of pre-galvanized steel, 14-gauge thickness.

Raceway connections are made by use of P-W's fast, dependable drive-rivet method.

The clips to hold the tubes are integrally mounted 2 feet apart in each Raceway sec-

tion. Raceway is generally cut in the field for the required length and changes of direction. However, 90-degree sharp-bend connector fittings, T fittings, cross fittings, and adjustable fittings are available for each of the four standard ($1''$, $1\frac{1}{2}''$, $2\frac{1}{2}''$, and $3\frac{3}{8}''$) widths offered.

Raceway covers, though seldom used, are available; consult the factory for details.

To order spare drive rivets, use the catalog number: DS-8500-2.

Table 83—TUBE RACEWAY—Catalog Numbers

Tube Size	1" x $\frac{3}{4}''$ Catalog No.	Cap.	1 $\frac{1}{2}''$ x $\frac{7}{8}''$ Catalog No.	Cap.	2 $\frac{1}{2}''$ x $\frac{7}{8}''$ Catalog No.	Cap.	3 $\frac{3}{8}''$ x $\frac{3}{4}''$ Catalog No.	Cap.
$\frac{1}{4}''$ O.D.	2503-0016-01	2	2503-0016-15	4	2503-0016-25	6	2503-0016-33	8
$\frac{3}{8}''$ O.D.	2504-0016-01	2	2504-0016-15	3	2504-0016-25	4	2504-0016-33	6
$\frac{1}{2}''$ O.D.			2505-0016-15	3	2505-0016-25	4	2505-0016-33	6
			2506-0016-15	2	2506-0016-25	3	2506-0016-33	4

SPARE CLIP PLATES—Catalog Numbers

Tube Size	1" x $\frac{3}{4}''$ Catalog No.	Cap.	1 $\frac{1}{2}''$ x $\frac{7}{8}''$ Catalog No.	Cap.	2 $\frac{1}{2}''$ x $\frac{7}{8}''$ Catalog No.	Cap.	3 $\frac{3}{8}''$ x $\frac{3}{4}''$ Catalog No.	Cap.
$\frac{1}{4}''$ O.D.	2521-1807-01	2	2521-1807-15	4	2521-1807-25	6	2521-1807-33	8
$\frac{3}{8}''$ O.D.	2522-1807-01	2	2522-1807-15	3	2522-1807-25	4	2522-1807-33	6
$\frac{1}{2}''$ O.D.			2523-1807-15	3	2523-1807-25	4	2523-1807-33	6
			2524-1807-15	2	2524-1807-25	3	2524-1807-33	4

Table 84—RACEWAY FITTINGS & CONNECTOR—Catalog Numbers

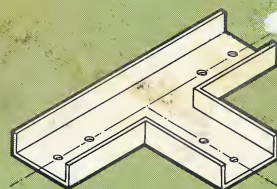
Description	1" x $\frac{3}{4}''$	1 $\frac{1}{2}''$ x $\frac{7}{8}''$	2 $\frac{1}{2}''$ x $\frac{7}{8}''$	3 $\frac{3}{8}''$ x $\frac{3}{4}''$
Str. Connector	1501-1301-01	1501-1301-15	1501-1301-25	1501-1301-33
Adj. Vertical	1501-1307-01	1501-1307-15	1501-1307-25	1501-1307-33
Adj. Horizontal	1501-1305-01	1501-1305-15	1501-1305-25	1501-1305-33
90° Hor. Elbow	1501-9000-01	1501-9000-15	1501-9000-25	1501-9000-33
Horizontal Tee	1501-2000-01	1501-2000-15	1501-2000-25	1501-2000-33
Hor. Cross	1501-1000-01	1501-1000-15	1501-1000-25	1501-1000-33
90° Inside El.	1501-9100-01	1501-9100-15	1501-9100-25	1501-9100-33
90° Outside El.	1501-9200-01	1501-9200-15	1501-9200-25	1501-9200-33

STRAIGHT RACEWAY—No Holes or Clips

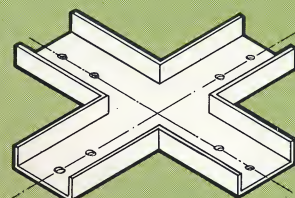
Catalog No.	2501-0016-01	2501-0016-15	2501-0016-25	2501-0016-33
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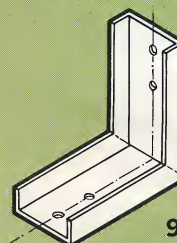
90° HORIZONTAL ELBOW



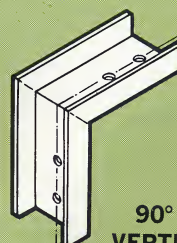
HORIZONTAL TEE



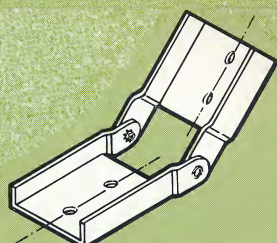
HORIZONTAL CROSS



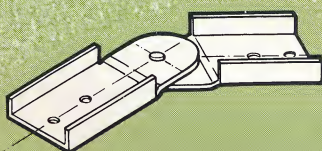
90° INSIDE VERTICAL ELBOW



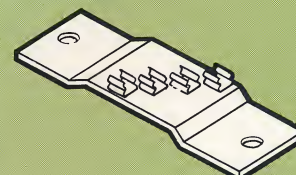
90° OUTSIDE VERTICAL ELBOW



Adjustable VERTICAL Connector



Adj. HORIZONTAL Connector



TUBE CLIP PLATE

Specification Suggestions

VERSATILE CABLE BASKET SYSTEM

Basket type cable trays shall have $3\frac{3}{8}$ " high x $\frac{3}{4}$ " channel sides; and 1" wide x $\frac{5}{8}$ " deep solid rungs on 4" centers, to permit drop-out of cables wherever desired. Inside depth of trays shall be $3\frac{1}{8}$ ". Standard lengths shall be 12 ft. in the following widths (specify 6", 9", 12", 18", or 24", as desired).

STEEL

(alternates)

ALUMINUM

Trays shall be constructed of: (steel equal to AISI C1008 and hot dip galvanized after fabrication in accordance with ASTM Spec. A386) or (pre-galvanized steel).

Trays shall be constructed with aluminum side channels of extruded 6063T6 alloy; and rungs of 5052H32 alloy.

Side rails shall be 16 gauge thickness.

Side rails shall have .081"-thick web and .105"-thick flanges.

Rungs shall be 20 gauge for 6", 9", and 12" widths; and 16 gauge for 18" and 24" widths.

Rungs shall be .080" thick.

Flanges shall face inward to provide a smooth flat surface for cables passing over the side rails. Flared ends of rungs shall be resistance-welded in four places to the bottom flange of side rails to give a rigid, smooth surface for cables and good electrical continuity. Provision shall be made in a cable clamp design to suit rung.

Fittings shall be of similar construction to straight lengths and shall permit easy intersections and changes of direction, elevations, and widths. All fittings shall be of: (steel, hot dip galvanized after fabrication) or (aluminum). Inside radius shall be (12" or 24").

The ends of trays and fittings shall be pre-punched with holes to match the channel connectors for $\frac{1}{4}$ "-diameter drive rivets or $\frac{3}{8}$ "-diameter bolts and nuts, as selected.

Connector plates shall be the type to give compression joint between sections and to be usable with straight sections and/or fittings. Adjustable, expansion, and adapter-type connectors shall be available to make odd changes in direction, to allow for thermal expansion, and to connect to panels, boxes, etc.

Basket type cable trays shall be **Versatile Cable Basket System Number** as manufactured by P-W Industries, Inc. of Philadelphia, Pa. and P-W Western, Inc. of Montebello, Calif.

CABLE LADDER SYSTEM

Ladder type cable trays shall have $3\frac{3}{8}$ " high x $\frac{3}{4}$ " channel sides; and 1" wide x $\frac{5}{8}$ " deep solid rungs on (specify 6", 9", or 12") centers, to permit drop-out of even large cables wherever desired. Inside depth of trays shall be $3\frac{1}{8}$ ". Standard lengths shall be 12 ft. in the following widths (specify 6", 9", 12", 18", or 24", as desired).

STEEL

(alternates)

ALUMINUM

Trays shall be constructed of: (steel equal to AISI C1008 and hot dip galvanized after fabrication in accordance with ASTM Spec. A386) or (pre-galvanized steel).

Trays shall be constructed with aluminum side channels of extruded 6063T6 alloy; and rungs of 5052H32 alloy.

Side rails and rungs shall be 16 gauge.

Side rails shall have .081"-thick web and .105"-thick flanges.

Rungs shall be .080"-thick.

Flanges shall face inward to provide a smooth flat surface for cables passing over the side rails. Flared ends of rungs shall be resistance-welded in four places to the bottom flange of side rails to give a rigid, smooth surface for cables and good electrical continuity. Provision shall be made in a cable clamp design to suit rung.

Fittings shall be of similar construction to straight lengths and shall permit easy intersections and changes of direction, elevations, and widths. Inside radius shall be (12" or 24").

The ends of trays and fittings shall be pre-punched with holes to match the channel connectors for $\frac{1}{4}$ "-diameter drive rivets or $\frac{3}{8}$ "-diameter bolts and nuts, as selected.

Connector plates shall be the type to give compression joint between sections and to be usable with straight sections and/or fittings. Adjustable, expansion, and adapter-type connectors shall be available to make varying changes in direction, to allow for thermal expansion, and to connect to panels, boxes, etc.

Ladder type cable trays shall be **Cable Ladder System Number** as manufactured by P-W Industries, Inc. of Philadelphia, Pa. and P-W Western, Inc. of Montebello, Calif.

RIGIDRACK SYSTEM

Heavy-duty aluminum cable ladders shall have extruded 4" high x (a) $1\frac{3}{4}$ "—or (b) $\frac{3}{4}$ "—channel sides;

and extruded $1\frac{1}{8}$ " wide x $\frac{3}{4}$ " deep 'I'-section rungs on (specify 9" or 18") centers, with continuous slot for clamping on top and bottom.

Inside depth shall be 3"; and standard lengths shall be 24 ft.

Ladders shall be constructed of 6063T6 aluminum alloy.

Side rails (a, $1\frac{3}{4}$ " flange) shall have .125"-thick web and .156"-thick flanges.

(or)

Side rails (b, $\frac{3}{4}$ " flange) shall have a thickness of .125" throughout.

Flanges of side rails shall face outward for maximum inside width and to give smooth flat surface for cables passing over side.

Rungs shall protrude through side rails and be arc welded on the outside, to give maximum strength and good electrical continuity.

Fittings shall be of similar construction to straight lengths and shall permit easy intersections and changes of direction, elevations, and widths.

Inside radius shall be (12", 24", or 36").

The ends of trays and fittings shall be pre-punched with holes to match the 6061T6 aluminum alloy plate connectors. Fastening hardware shall be $\frac{3}{8}$ "-diameter ribbed-neck bolts and prevailing torque (lock type) nuts. The bolt heads shall have a recess for Phillips screwdriver, for easy field use and protection to cables.

Connector plates shall be the type to give compression joint between sections and to be usable with straight sections and/or fittings. Adjustable, expansion, and adapter-type connectors shall be available to make varying changes in direction, to allow for thermal expansion, and to connect to panels, boxes, etc.

Heavy-duty aluminum cable ladders shall be **Rigidrack System Number** as manufactured by P-W Industries, Inc. of Philadelphia, Pa. and P-W Western, Inc. of Montebello, Calif.

P-W

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